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Presented by
Dr. John D. Roberts

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W. Worthington
John B. Roberts
1874

Carpenter's Physiology

Manuscript Notes of
The Medical Lectures
of Dr. Chapman,

from the Library of Dr. Wilmer Worthington.

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Constriction about the throat. Small pulse -

Sometimes the patient solicits indigestible articles, as dirt - chalk, &c. also fruits. The mind becomes affected ^{sometimes maniacal}. "He who has a clear head should have a sound stomach"

Stools of various colours - Generally of a Clay or ash coloured - sometimes green - dark - &c.

I now have a lady under my care who is sometimes completely Tetanic from dyspepsia -

① I have seen amaurosis, hydrophobia, Tetanus, &c. symptomatic of Dyspepsia -

Sometimes Tinitus aurium - tenderness of the scalp, &c.

The urine deposits a catenaceous sediment - tension of the abdomen. the bowels give way -

Sometimes extends to the lungs & causes hæmorrhage - Sometimes emaciation - paralysis of the lower extremities.

Dyspepsia. Indigestion.

Dyspepsia is a disease of very ordinary occurrence and there is no practice more difficult or perplexing. It will not be necessary for me to say much of its history, as you will find this detailed very extensively and accurately by most writers.

There is usually great depravation of the appetite, squeamishness, nausea, vomiting, sudden and transient distention of the stomach, acid eructations, eructations of various kinds, flared tongue, fatid breath, cardialgia, irregular spasms, a gnawing sensation at the stomach, pyrosis or water brash, constipation of the bowels, chilliness, Languor, dejection of the spirits and disturbed sleep. Besides these are some anomalous symptoms, as pains in the breast, side or head, disordered vision, as regards the eye some of the circumstances are very extraordinary— I have known patients who saw every object double, I have also known some to whom every thing was inverted, one case in which complete blindness existed. This blindness existed only during the paroxysm of the pain; going off when that ceased in this way alternating for 24 or 36 hours. I have had several cases of similar irregularities in vision in which a cure was accomplished by overcoming the affections of the stomach.

And lately a lady from the south under my care, who came to this city believing she had an aneurism of the aorta. in this she was confirmed by several of her physicians; and by placing the hand on the abdomen a strong pulsation was evident, which would sometimes move the bed clothes which cover her; I cured her of this supposed aneurism by Enetics and Tonics, shewing that it was merely a symptom of dyspepsia. Vertigo, and palpitations of the heart sometimes occur. The appetite is not uniformly bad, in some instances it is voracious, the patient eating large quantities, and having an excessive longing for the most active articles as diet, chalk, unripe fruit, &c. digestion is also sometimes performed with regularity—

The CAUSES ^{of Dyspepsia} are those which act directly on the stomach or through the intervention of the system— of the former the improper indulgence either in eating

- ③ Excepting drunkenness there is no cause so prolific of dyspepsia as the use of Tobacco-

"I was well, wished to be better, took phlegm and died"

- ④ The case of a woman related, the teeth being removed she recovered-

⑤ Sometimes we find schirrhous of the stomach from dyspepsia, as in the case of Bonaparte - the find the stomach relaxed - sometimes evidence of chronic inflam.

⑥ "The morbid appearances to be observed on dissections of this disease are principally confined to that part of the stomach which is called the pylorus, this being often found either in a contracted, scirrhous, or ulcerated state. In every instance the stomach is perceived to be considerably distended with air."

Pathology - It has its origin in nervous irritation - followed by ~~the~~ inflame and its consequences - At first it is a functional derangement owing to nervous irritation - here we have nausea - flatulences - ^{and} eructations, indigestion, ^{nervous irritability} i.e. the muscular power is also impaired and its contents cannot be propelled & we have a sense of weight and oppression, because the food remains there undigested.

2nd Stage. Inflamⁿ occurs - Here tenderness of the Epigastrium - Hepatic obstruction - ^{chronic} enlargement of the follicles, erosion - ulceration - schirrhosity of the pylorus -

Prognosis - Ind by the stage of the case - age of the patient &c.

In the early stage we can cure - after continuing for a long time only palliate

or drinking is a very common cause, so as to distend the stomach - The frequent⁵ and excessive use of ^{acid &} Spirit~~uous~~ and even of water, strong tea and coffee and the use of gross animal food, acid drinks; the habit of frequently and upon slight occasions of employing medicines especially emetics, very often opium or tobacco is a cause of dyspepsia by being much employed; most of the saline medicines, especially nitre - I have seldom known nitre continued for any length of time without injuring to the tone of the stomach in a greater or less degree. Of the causes which act through the system; the most frequent are an indolent and sedentary life, excessive study, attention to business within doors, grief, anxiety, dejection of spirits, cold especially cold to the feet which is perhaps one of the most common causes of dyspepsia -

This disease is often symptomatic of others, as derangement of the Liver, Pancreas, Spleen, uterus, brain, ^{a irritation of the cavity of the} &c. From the great number and diversity of the gastric affections, whether primary or symptomatic, the practice is very embarrassing and doubtful; the treatment must vary in almost every case and I can only lay down that plan which is most usually demanded. The first Indication is to cleanse the stomach of the crude and indigestible substances which are usually to be found in it. This is to be done by an Emetic, which not only evacuates these crudities, but also prepare the way for the exhibition of other remedies. By the generality of practitioners Specaculum is preferred, as it is sufficiently active, and is supposed by some to have a specific and salutary influence on the stomach. It is necessary in many cases frequently to repeat the Emetic, especially when there is acidity, i.e. a rapid accumulation in the stomach. After thus cleansing the stomach we may resort to the milder purgatives. The drastic and the saline cathartics are not to be used. Rhubarb however is an exception which is often very well adapted to this complaint; from its true powers it is however apt to leave the bowels in a constipated state -

R. Rhubarb ℥iij. -
Bruised canaway seeds ℥ss.

ardent Spirits - pintij. Dose a table spoonful in a wine glassful

6 The peristaltic power is useful -
also Rhubarb and aloes -

Senna and Gentian infused in water is one of the best -

$\mathcal{Z}\mathcal{i}$ of Magnes: and a $\mathcal{Z}\mathcal{i}$ of prepared Chalk acts as actively as the
magnes: by itself -

③ A combination of aloes & apapatida ^{in equal proportions} also Meads pills -

④ Ascertain for certain before the use of Tonics whether there be inflam:
of the stomach - . It may be suspected where the tongue is furred or
prematurely red - Epigastrium painful - pulse hard, &c. then Tonics
are improper -

of warm water - The best purgative however is a combination of Sulphur & phuris and Caleenid Magnesia, in equal quantities, ʒj. or ij. are to be taken in milk every night at bed time. This is by far the most certain and mild cathartic we possess; I know of none which is more serviceable in habitual costiveness, as by its constant use it hardly ever fails in relieving the constipation and inducing a regular habit of the body. When it does prove offensive (which is very seldom) the sulphur may be omitted, and the magnesia may be continued by itself or what is better powdered oysters shells - this last is a very excellent combination, and this as well as the former mixture of magnesia and Sulphur are admirably suited to dyspepsia as operating both as a purgative and as an Antacid, ③ - The condition of the Alimentary canal being thus rectified we must now resort to Tonics. ④ These are very numerous yet they have all been employed: the best and those most generally used are Gentian, Columbo, Quapica, Hop & Bark. The last at one period had great reputation but at present it is not much employed. It has been administered in these cases in decoction, and infusion with aromatics; but judging from my own experience, I would not recommend its employment in any form; but I have employed the hop and quapica with most utility. The hop is given in tincture or infusion; ^{particular pills, in the case of drunkenness} I have found it very useful and have succeeded with it in a case of great obstinacy, by an infusion of the hop. The Tinct. of Hop is admirable where intoxication is the cause of dyspepsia. The Quapica is generally given in pills or infusion. An extract has lately been made which is highly recommended; I prefer the infusion however. It must be given freely ʒj. or ʒij several times a day. Mineral Tonics however are no doubt the best. The preps of Iron particularly the Rust of Iron are usually employed. The rust is given in the dose of gr. x. with a little vinegar 3 or 4 times a day. The chalybeate wine is much employed, especially when there is any constipation of the bowels. I prefer the following form

THE END OF THE WORLD

℞. Rust Ferri. ℥ss.
Rad. Gentian. ℥ss.
Cortex Aurant. ℥ss.

Port Wine ℥ij. Digest for two or three days in a warm place and give ^{acroping glass full} ℥ss. 3 or 4 times a day. The Sulphate of Iron or Sal Martis is much employed and I think is the nearest and most efficacious remedy, generally in pills ℥j. of the salt being mixed with a sufficient quantity of Gum Arab: to make 30 pills; 2 or 3 being given 3 or 4 times a day. The Phosphate of Iron, given in the same way. Muriat. Ir. of Iron in the dose of grs. xv. or xx. associated with dyspepsia are several very painful affections, which modify it, and demand a new and different practice. Painful cardialgia, it is felt sometimes when the stomach is empty. The remedy in such cases would be eating, it is of very common occurrence. This is owing to the morbid acidity and is often very troublesome. Emetics cannot always be repeated with effect: other remedies are therefore demanded. Lime water & Milk is very excellent and many of the Alkalines absorbents are remarkably effectual the best of which is magnesia. Both of the Alkalies are much used. The Potash is very useful.

℞. Carb. potass. — ℥j.
Comp. Spts. of Lavend: ℥j.
Gum arab: — ℥ij.
Sacch: alb: — ℥j.
Laudanum — grs. xxx.

Aq. — ℥o. Misce. of this ℥ss. is to be given when necessary. This is pleasant to the patient and highly serviceable. but the vol. alk: sometimes answers much better, ^{as it does and is what women} It is given in the form of pills. vol: Sulep, or aq. ammon: —

℞. Aq. Ammon: —
Calc. Magnes: aa — ℥j.
aq. Cinnamon: — ℥ij.
aq. — — ℥oj. - m.

Sal. Eratis - - - - highest state of super carbonation - Sore
a Tea Spoonful in a glass of cider.

⑤ I have found Almonds useful. Make the patient chew a few Almonds.
I have known the Acids very useful; both the vegetable and Mineral
acids have relieved cardialgia.

⑥ Lpts of Turpentine - Opium & Ether the best.

⑦ Boiling water stimulates equal to Spirits readily - Sir Edmund
Berk's case.

Another.

℞. Caustic potash from ℥j. to ℥j.

℥ss Magnes: ——— ℥j.

Milk water ——— ℥j.

Water ——— ℥vj. m.

But of all the remedies with which I am acquainted; where there is an accumulation of acid in the stomach producing the distressing sensations; there is nothing equal to the preparations of soot and Hickory ashes, &c. This Dr. Physick has found successful in relieving him when all the regular medicines had utterly failed. — Take of fine hickory ashes 1 quart; ~~a half a pint~~ ^{half a pint} of clean soot, and add to these a gallon of boiling water, suffer it to stand for six or eight hours, then decant it, ℥j. or ij. are to be taken immediately after each meal. Why this mixture which contains nothing active but the potash, should be more effectual than the pure alkali, it is impossible to determine. It is another instance in which the pride of science must humbly bend to the positive fact. With the greatest confidence I recommend it to you; It has become exceedingly fashionable among the regular and best informed of the practitioners of this city, and all concur in its efficacy. In this derangement of the stomach it is apt to be thrown into violent irregular action, as spasms which constitute that particular symptom of the disease called Gastrodynia, extreme puffing. This is to be relieved generally, by the use of remedies for dyspepsia. Sometimes Opium, Ether, Musk, Hoffman's anodyne, and other antispasmodics are to be administered. to relieve for the moment, the best of these is Opium. New milk is sometimes very effectual; milk forms a coagula in the stomach. General Williams of the Navy was immediately relieved by new milk. Tepid water is useful, distend the stomach with it, ^{small portion of boiling water} 3 pints taken at once, relaxes the stomach. ^Q

But there is a remedy for the affection which I appreciate very highly, it is the Hiera picra formed of aloe and canella alba. ℥j or more of the Tinct. will generally allay pain and as a preventative I know of none which is

② Elixii Proprietatis.

more important - the Warner cordial in doses of ʒj. I have tried with ad³
vantage - Colic Tr. of Guaiacum also, the Spts. of Turpentine is also useful and
deserving of further trial. But when the affection recurs habitual a Blister
to the Epigastric region becomes necessary; this is a most important remedy in all
chronic diseases of the stomach as well as in those of an acute and violent form.

It is now near 40 years (about the year 1786 since the Uyde of Bismuth was
brought into notice by Dr. Osier of Geneva who supported his recommendation
by the highest testimony; but as some injurious effects were said to be induced
by it, it was brought into discredit. In the year it was revived in London
by Dr. Marcet and its efficacy is there maintained by the highest authorities.

In this country it has been employed in our large cities, and has been highly
praised in New-York, but particularly in Boston. But judging from my
own experience and that from the practitioners of this city, I should say that
it is not a medicine of any great utility - I have tried it in numerous cases
and the result of the whole is not very strong in its favour, which as I before said is
contrary to the experience of the practitioners of England, and in this country;
particularly Boston. It is exhibited at first in doses of gr. v. or gr. x. which are
to be increased to gr. xv. or xx. with the powdered Gum Arab. or in the form
of pills 2 or 3 times a day - Flatulences - carminatives - Elixir vitæ -
with bark - Specac. in pill perfectly dry - 2 gr. in a pill - immediately after
eating a meal -

Dyspepsia or Water-brash

This is another troublesome symptom of Dyspepsia requiring much attention.
In some countries this prevails as an Epidemic, especially towards the North
of Europe - In Iceland, Norway, Sweden, I have seen it frequently in the
Highlands of Scotland, and it is said also to prevail in the Western parts
of our country - Linnaeus says that in Sweden, it is produced by the frequent
use of Bried Beef ^{smoked} and that it is cured by a change of diet. This is ve
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⑥ Useful as well by changing the morbid condition of the stomach as by emptying it of its contents.

Sick headache - preceded by nausea - flatulence

⑦ Sick head-ache, is to be treated by Emetics, Large doses of Magnes: acids, as vinegar, &c. ^{lemon juice - hard cider} Laud: carb: ammon, if fullness of the blood-vessels, ^{and applied to the stomach} V. S. ^{Emetics much attended to for long periods}
Sic Doloureux has been treated by this practice successfully when it has its origin in the stomach; but it generally arises from decayed teeth, which ~~is~~ be removed.

probable; It may undoubtedly be owing sometimes to mean, pernicious diet: 15
(but this seldom the case), I have frequently seen it among the rich & luxurious.
There is often too obvious a cause, excessive eating and drinking usually pro-
duce it, especially the latter, whether the beverage is spirituous or consisting of
pure water - It is considered as proceeding from an unnatural condition of
the pancreas, & from a morbid secretion of the stomach. It may arise from the fir-
st of these causes but it is certainly a morbid secretion of the stomach in most
instances. It is to be cured by most of the remedies which I have mentioned,
particularly the Lime water & milk; when the discharge is profuse we com-
mence with an Emetic. next all the ant-acids as lime water & milk, &c.

Opium has been greatly recommended especially by Dr. Cullen, whose opin-
ion is entitled to credit, as he so rarely speaks favourably of any article. From
my own observation it is not entitled to much confidence. It undoubtedly
will palliate, it will relieve the spasm preceeding the occurrence of Dyspepsia, but
it has not made any salutary or permanent impression on the disease.

Emetics are here important articles, they relieve the stomach of the fluid by wh-
ich and overcome the morbid action of that organ by the impression which they
make on it, sometimes it will yield to a single emetic; but generally it must be
repeated 2 or 3 times. The most important remedy after emetics is the oil of
Amber $\text{gtts } x. \text{ or } xx.$ being given in sugar & water. Sugar of Lead, Spts. of Turpen-
tine, ^{Oxide} ~~Nitrate~~ of Bismuth - This is the best plan of treatment in Dyspepsia,
simple, or combined with the affections above noticed. Sometimes this disease
is exceedingly unmanageable, and is not to be relieved by the usual remedies.

Often in these instances there is no organic disease, of the stomach, or of any
of the chylopoietic viscera, as aneurism, enlarged pancreas, water in the ch-
est, &c. ⁽¹⁾ It is fixed and invited by habit & can be removed only by some means
which will wholly reverse the existing state of things, no remedy is so well cal-
culated for this as Mercury, but it should be employed with great discre-
tion.

- 16 The celiac artery is more liable to aneurism than any other vessels -
The palpitations are feeble when dependent on organic lesions.

② Galvanism has been lately recommended, supposing it to depend on nervous influence - By Wilson Phillips -

③ Oil of Amber and Turpentine - Essential oils -

④ Percival relates a case of a woman having swallowed a nutmeg which she caused so much irritation in the stomach, so until it produced an abscess of the lungs. Hildanus relates a similar case from swallowing a metallic button.

If it be carried to any extent & by its free exhibition salivation be suddenly in-
duced we will gain but little advantage; but if it be given in minute doses &
be gradually introduced into the system, we will obtain its attractive powers
by which the morbid habit will be supplanted. There is some choice in the
preps. of Mercury; the best is the Blue pill in small quantities. Conceiving th-
at dyspepsia was brought on by a diminution of vitiation of the gastric liquid,
Ritcher and others have recommended the Gastric Liquid of animals; I have
tried the practice in several cases but with no decided effects. With similar
views the Bile of Animals has been advised and although it is a most
excellent Laxative obviating constipation. I am not certain more is to be
expected from it. This is all I have to say on ordinary cases. (could
not dyspepsia be cured by a course of purging, as the Morbus Coxarius, Spina
bifida and white swelling are cured?)

The immediate remedies for palpitations, are the Ant-acids, Antispas-
modics, as Laud: Ether, Hoffman's Anodyne, musk, &c. but the
cure is dependent on the removal of the cause.

This is all I have to say on the ordinary cases of dyspepsia; but to com-
plete my account of this disease, I have yet to mention some of the less com-
mon forms. There is one kind I have ~~not~~ met with but I do not find it de-
scribed in authors. It arises from low chronic inflammation of the stomach
it is seen generally in debauched persons, this is so much the case that I at
first supposed it only affected such characters, but I have since met with in
temperate and sedate dispositions. It is marked by a strong sensation of
heat and pain of the stomach, ^{tenderness on pressure,} the pulse being hard and corded and very
quick, besides there is a small diminutive fever (The Febricula) occasionally
 hectic, ^{type} suffusion, ^{of cheeks, sallowness of complexion} and dry hard cough, and wasting of strength and health;
indeed the symptoms are very similar to incipient Phthisis, (there is pain in
the side, sallowness of the skin, &c.) and very apt to be confounded with it.

18 Dr. Chapman relates a case where worms produced the same symptoms.
I have known it produced by indur & constipation — a several girls.
A nutshell produce the same disease —
The Liver, spleen, pancreas &c. also suffer, as well as the lungs —

③ By Broussais & his followers topical bleeding is recommended,
in aiding v.-s. no doubt useful —

④ Great attention should be paid to the bowels — Small doses of the
saline purgatives — Epsom — Glauber, Rochelle, chittahen, &c —
after this mercury —

⑤ Barley water. Gum arab. &c. Lemonade —

In the stomach there is an inflammation very similar to that which happens in some cases of Brainhaea, where the purging is kept up by inflammation; and is only to be cured by depleting remedies. In this affection of the stomach which we have described, it is manifest that bleeding is the proper remedy. Bearing in mind the peculiarity of the pulse we are not to withhold the use of the Lancet; in the present and perhaps in all chronic inflammations, small and repeated bleedings are preferable. As auxilliary gentle vomiting should be adopted and afterwards Spessac in small doses so as not even to excite nausea, in this way it is very useful and acts as an alterative, acting gradually on the stomach till ultimately it is changed to a natural and healthy action. This is not a new practice 50 years ago it was recommended by Bomechon and since his time by several very respectable authorities, but the particular cases to which the Spessac is adapted has not hitherto been pointed out. I have only ~~used~~ used it in the above cases where it is highly advantageous. If it fails a moderate Salivation becomes necessary. Besides the idiopathic instances of dyspepsia, there are some which are secondary, or which arise from sympathetic connection of diseased viscera. These are very common especially those from hepatic derangements: but as the cure in those cases depends on a cure of the primary disease, I will not say anything of it at present. It will be enough to observe that Mercury and the mineral acids, are the proper remedies. The Nitro-muriatic acid bath is highly recommended; Low diet, very low indeed, should be enjoined, & the mildest demulcents. Occasionally there is another idiopathic case produced by indulgence in spirituous liquors. This is marked by extreme debility, by nausea, ^{violent} vomiting, ^{stagnant} flatulent eructations, fatid breath, there is a total loss of appetite if food be taken it is either immediately rejected or very badly digested; this may be suddenly induced and is then to be treated by gentle stimulants and by cordial nourishment, by Opium.

④ Secondary symptoms treated by Mercury & the mineral acids—

But when it degenerates in a long, tedious state, dissection exhibits considerable organic derangement. ^{of the stomach,} The inner coat of the stomach has a smooth and glass-like surface, the rugae and villi being absorbed from the constant irritation to which they are subjected. The Treatment here is simple, palliative. The gastric irritability, the vomiting and spasm, may be relieved by the usual remedies; but the best in this case is opium, col. alk., musk, Castor, Garlic, apafatida, and cardiac drinks. ^{no nourishment} These antispasmodics relieve the tremors and other nervous affections which are usually present.

But the permanent cure is only to be obtained by a reformation of the patient's habits. When the strength is in some measure restored, then the proper remedies, (as mercury and the mineral acids) for the visceral disease so often accompanying such cases are to be employed. But in all the various cases of dyspepsia we shall accomplish very little without a proper attention to diet. It is the stomach that is the seat of the disease and the receptacle of its food.

It needs no elaborate discussion to prove that only the mildest articles are to be given and those which require the least exercise of the digestive organs.

A Milk Diet is decidedly to be preferred to all others, cases of the most obstinate character have been relieved by it; but to prove effectual the patient must live entirely upon it; not even bread is to be allowed with it. It is to be taken several times a day and is best when brought directly from the cow. Milk is beneficial in all cases of dyspepsia, not only in the most simple forms, but also in Gastrodynia, cardialgia, Pyrosis and palpitations.

In the last of these nothing is so useful in cardialgia, it acts very promptly and effectual, but it has not been so much recommended in Gastrodynia. I have however seen it of the most unequivocal advantage in such cases. indeed it possesses some extraordinary powers in spasms of the stomach and intestines; I have known it immediately relieve the spasm in Flatulent colic, and in several of my friends it had a similar effect in spasm from

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Retrocedent gout. The Late Col. Williams whenever he had an attack, took a pint of new milk which as soon as it reached the stomach, invariably abated the spasms. I do not say that it will answer in all cases, but in gastrodynia it is more effectual than any thing I know. The objections to its employment are, that it does not agree with many persons. That there are certain idiosyncracies, is true; but such instances are very rare; it ought not to be laid aside, because it is sometimes rejected in a curdled state, for you should remember that even in the most healthy stomach, the first step in the digestion of milk is that it is curdled; on this account then we should not condemn its use. But very often at the first trial, the patient will not reap much advantage from it; but complain that it disagrees with him and lies on his stomach, but not here are we to abandon it too hastily, for after the expiration of 2 or 3 days, the stomach is capable of receiving it and all the inconveniences are removed. Poughlapp who wrote on the Gout, says that whenever milk disagrees with the stomach at first, it is in a certain morbid state which milk will ~~not~~ correct. This is in a great measure true. The stomach is often powerfully acted on by milk which although at first rejected, finally is received. But there must be some cases in which milk is in reality hurtful; we have then a substitute for it in chocolate.

But it is not to be given as ordinarily prepared for our table, but it is made in a particular manner. Boil the chocolate in water, let it cool, skim off the film which arises, then reboil and pour it on cream and sugar for use. In this manner it is deprived of its oil and dregs and rendered very agreeable and salutary. But if the patient be disgusted with it, we should resort to slight solid food, such as beef, mutton, the whiter kinds of poultry, game, oysters, Black tea may be allowed, but neither green tea nor coffee are to be permitted. -- I never knew a recovery in those cases in which they were much used, also we should forbid veal, pork, and the dark poultry, as Geese and ducks, Salt and dried beef are hurtful, and therefore no ham or smoked beef are to be given. It is a

Epence of beef- boil it, and then cut up the pieces. and then boil it again in a bottle - a little salt may be added - very good -

③ When the stomach is supposed to be inflamed vegetable diet -

④ Bran bread is useful. Made of flour ~~it~~ has not been bottled

The patient should not be conscious
of food. The Roman, some
will only bear ~~one~~ ounce as
two some several,

"Eat your food like a drink and lie
down as a cow, did you ever know
a cow to have dyspepsia?"

general opinion that broths and soups are easy of digestion, however this ²⁵ may be in a healthy state, it is a point now well attested that in disease they quickly sour on the stomach and produce very distressing effects. As to vegetables the common potatoes and Rice, ^{roasted} ^{well boiled} may be allowed, but no other; the first of these should always be roasted, and the rice very well boiled. ³ All the articles known by the name of departs are injurious, as fruits, nuts, &c. bread. corn should not be used unless toasted and without butter. ² It is necessary however to be more minute in our directions on these important points, and 1st Take his food frequently. I have already mentioned the observations of an old physician, that "the stomach is like a school boy, when idle it is always prone to do mischief." we should therefore keep it constantly employed. the patient should take food 5 or 6 times a day and generally should be aroused at night, if he does not awake, as otherwise the symptoms will be found aggravated by the morning. 2nd The food should be cut up fine and eat a little at a time. Do not let him take exercise immediately after eating.

3rd We should not combine several articles together, every thing should be plain and simple and easy of digestion. 4th Little drink should be allowed at his meals; in many cases the appetite is voracious, sometimes however it is very bad and in those cases we should administer those articles which would be likely to excite it. we should never let him know what he is to eat but surprise him with some nice little article, as he will be much more likely to partake of what is offered in this manner; the odour of the articles is very apt to disgust the patient, to avoid which it will be best generally to present them cold. moreover, always let the quantity offered be small as large quantities of food prove very disgusting. As regards Drinks upon the whole simple water is the best. I have seen old porter given and in some cases it answered very well, but very generally proved hurtful. Old wine also is very apt to turn sour in the stomach and produce acid eructations, the best is

① In the above state, if action
 wait for the subsiding,

② The Laxatives are Laxative - The Ball-torn are Tonic. use the
 former first, & then brace up the system with the latter -

③ Buckskin is also very useful to guard against cold-

④ depressed vision and pain in the head
 for depressed stomach & catarrh
 use by rectum, Acetate of morphine
 immediately applied, or

Madiera, Sherry or Lisbon. Old Spirits may occasionally be employed, ^{much} ²⁴ diluted with water where the patient has been very much accustomed to this stimulus; But all these should at any rate be administered sparingly - deluging the stomach defeats all our purposes. In long protracted cases we have to employ some remedies which act on the system generally. The warm Bath ^{1 or 2 a week} is useful acting not only as a stimulus but also by inviting the disease to the surface of the body and lessening the morbid action of the stomach, the Cold Bath acts also in the same way. ^{castor nap angr.} Frictions with salt made by a brush are beneficial. ^{every morning.} The whole surface. Exercise is confessedly a very important part of the treatment, Riding on horseback is preferable; but walking also proves very beneficial. To have the full effect however we should dispatch our patient on a long journey to some fashionable watering place, as here the advantage of exercise, of change of air, of freedom from care, and of amusement are combined to render the patient healthy and happy. The tonic power of the chalybeate waters is also serviceable, there are several useful springs in the U. States, but the best undoubtedly are the Saratoga, and Ballston. The clothing of the patient requires also much attention. All acknowledge the intimate connection between the skin and alv. canal; which should always be remembered in practice. The body should therefore be kept warm, flannel should be worn next the skin at all seasons of the year, summer and winter. It is well known how useful this is in bowel complaints, it is no less so in those of the stomach. I have already mentioned cold feet as one of the causes of dyspepsia. This is a very important point to be considered in persons liable to this complaint: cold applied to the feet very often brings it on; they should therefore be kept very warm, and often it will be proper to apply some irritating substance, to keep the feet ^{warm}, thus, worsted stockings should be worn. it is useful to dust the stockings with cayenne pepper, from this I have known great relief procured in many instances - it keeps the feet warm and slightly irritated. A plaster of shoemakers wax applied to the soles of the feet acts in a similar manner.

Some accounted by cam, Rumex,
cherries, musk, melleus, cabbage,
pork, &c.

rarely commences in the serous coat
constricta when the upper portion is affected
et vice versa, jaundice & ascites
when of the color & tenderness of abdomen

⑥ Modified by the tissue in which it is seated - when in the mucous
coat little pain - when the fibrous & peritoneum pain se-
vere & lancinating - Symptoms of peritonitis. Heat, thirst, great anxiety.
pulse hard & corded - Constipation, vomiting, pain severe.

By this I have known even amaurosis prevented. But with all labour and 29
attention we will not accomplish our wishes unless we remove the remote cause
of the disease - with this view therefore all the habits and pursuits of our patient
must be changed. If he uses tobacco he must lay it aside; if he be intemperate
he must become sober; if luxurious he must abandon the pleasures of the table;
if indolent he must engage in some active employment; if studious let him for-
sake the midnight lamp and indulge in the society of his friends; if desponding let
the business of his physician be to comfort him, to spread before his imagination
the honors or emoluments that may await him; to excite his hopes; to remove
him from the source of his sorrows, let the physician never abandon him; the
resources of our art are sufficient to satisfy every demand; they should be cau-
tiously and directly employed, and will be found capable of ameliorating the
distresses of the mind and body.

Enteritis. Inflammation of the Intestines. *Common*

Much that might be said on this disease has been anticipated whilst speaking
of gastritis; the two diseases are indeed very similar arising from the same cau-
ses, attended by the same symptoms, requiring nearly the same treatment. All
that has been said of the danger of the inflammation when affecting the stomach,
the rapidity of its progress and of the urgency for bold and decisive practice appl-
ies equally to inflammation of the intestines. There is a difference in the greater
necessity of opening the bowels in Enteritis, to overcome the constipation of the
bowels is very necessary as it increases and strengthens all the symptoms. For
this purpose enemata have been preferred to purgative medicines as these

30 Gangrene has taken place in a few hours—

"Terminates in ulceration, serising, gangrene, a 'Resolution'—

Signs: Pain & subside gradually — ~~the~~ bowels relax —
pulse full & soft ^{equal} moist skin moorer perspiration

Dissections — Inflammation in the intestines — Peritonium — Mesentery.
Gangrene — ^{seen in small intestine, but the large intestine} adhesions — ulcerations. Coagulated lymph
in vessels, inflammation of the pleura, & brownish pus

"The Termination of Enteritis is ^{marked} ~~known~~ by a sudden remis-
sion of pain, sinking and irregularity of the pulse, shrinking of
the features, cold sweats, syncope, suppression of urine, hiccup,
and distention of the belly, Generally fatal."

hurried respiration, dark watery flocculent
stools, fetid smell, &c.

⑥ Followed by pyrexia.

are supposed by their harshness greatly to increase the inflammatory symptoms. Not having noticed this in practice, I act otherwise and prescribe Calthartics in Enteritis; of these I prefer the Calomel in divided doses, (but the aggregate administered is very considerable) for reasons already noticed and give it in divided doses. if it should linger in the bowels some other purgative is to be given as Caster oil or Epsom salts - if gr. x. of cal: does not act, then in 4 or 5 hours exhibit the purge. After the bowels have in this manner been freely opened, they should be kept in a soluble state by means of the milder purgatives. For the remainder of the treatment, I refer you to what has been said on Gastritis - after purge, the most decisive remedy is V. S. - I have seen the patient relieved before the arm was tied up. It relaxes the bowels, & he goes immediately to stool - Fomentation - warm bath - In the sinking condition Turpentine is the best.

Peritonitis. Inflammation of the Peritoneum.

This is more insidious in its attack and not having received much attention from practical writers, is comparatively little understood; and also as the treatment is somewhat peculiar, it will demand of me a more particular consideration. The nature of this is doubtful and not well understood. It is however clearly ascertained that the peritoneum is liable to an acute and chronic inflammation, both of which I shall notice. The acute like other inflammations commences with alternate chills and fever, with pain in the limbs and back, the pulse is very small, very quick and corded and well calculated to decide us as to the nature of the disease. But at the very commencement there are some symptoms which would awaken suspicion. These are great heat and pain in the abdomen which is sometimes confined to one place at first, but soon becomes diffused by pressure, the pain is much increased; this tenderness quickly

① tongue smooth - sometimes covered with white fur -
pulse small and corded.

③ The countenance betrays anxiety & distress.

⑤ cold, clammy sweat.

Causes of Peritonitis. Cold. Sleeping in damp rooms,
standing on damp grounds - also by the infiltration of
foreign fluids, as urine, bile, &c. into the cavity of the abdo-
men - violence, blows, falls, &c.

Sometimes Epidemic - in Germany - Holland - Italy - It
is said in such cases to be contagious - I do not believe it -

It may be induced secondarily - from other diseases -

extends over the whole belly. There is gastric distress, ^{vomiting,} constipation, consid. 33
erable thirst, and some dryness of the tongue and fauces. It is not the least peculiarity of this disease that at the dawn of the attack, the tongue and fauces have the same appearances as in Typhus. This is not uniformly the case; more than once have I seen these parts remain moist throughout the whole of the disease.

These are the ordinary symptoms which usher in the disease, in 12 or 24 hours the pain becomes so great that even the weight of the bed-clothes cannot be borne, the pulse is small and contracted, at 110, 140 or even 150 in a minute the tongue is more or less incrustated, tension and swelling of the belly now occur and also another symptom which will always be noticed and which should be remembered, the patient lies constantly on his back with his knees drawn up towards the abdomen. The reason of this position is obvious, as then the weight of the bowels is thrown on the spine and the abdominal muscles are relaxed. The first symptom of recovery is ability to extend the legs, if you find these down and the patient remaining comfortable in that position, all danger is over unless indeed gangrene has taken place. As the disease advances all these symptoms are aggravated; all tumefaction and pain suddenly ceases as if from the operation of our remedies, but death always follows this circumstance, at the same time the pulse sinks, and becomes much more rapid, vomiting of a dark matter ensues, or rather expelled by a kind of singultus or hicough, as by a spasmodic action of the stomach, the patient in this way bringing up mouthfuls of this dark substance. I have seen the black vomit in these cases in the same manner as in any case of yellow fever, indeed peritonitis never terminates fatally without the appearance of this discharge. This will rest for several hours before the patient's death, he will be covered with cold clammy sweats, the extremities become cold, the face is contracted and distressed, and a stertorous, difficult respiration precedes the fatal event. The cessation of pain in peritonitis is only favourable when it is gradual and where the other symptoms have proportionably abated.

34 we find extravasations, serum, & a fetid lymph - San is
effusio, &c. No ~~inflamed~~ redness in the peritoneum itself -

The blood may have been withdrawn by death, or it may not have
received any red blood into the serous cavity -

It is thickened, opaque - &c.

The pain in Peritonitis is more constant than in colic -
pain lancinating - In colic the pain is relieved by pressure -
not so in Peritonitis, here it is increased.

"Peritonitis distinguished from Enteritis by the pain being permanent;
by being increased by pressure, even before any tension has taken place on
the abdomen; by its producing no inclination to go to stool; and by
its not being diminished if this evacuation should take place spon-
taneously."

© Blisters - I would uniformly precede their use by warm fomentations -

Dissections point out the seat and appearances of the disease. In every ³⁵ portion of the peritoneum there are traces of inflammation, ^{and its consequences} It is curious however to find that in that portion of the peritoneum which lines the abdominal muscles, the inflammation extends no deeper than the membrane, the muscles not being affected, while in the intestines it extends deeper involving every coat of the intestines. There are two diseases with which it may be confounded viz. Colic & Enteritis, also Gastritis. They have indeed many symptoms in common and as the treatment is very similar in each, the mistake is not of so much consequence, but there is a pathognomic sign of Peritonitis, viz. that there is never any inclination to go to stool and also that the most copious evacuations by the bowels afford no mitigation of the symptoms, judging from the character of the disease it would be supposed that there could be no doubt of the proper treatment; but this point has been much disputed; some practitioners trust almost exclusively to the Opium, while others are free in the use of the Lancet and its auxiliaries. many distinguished practitioners are arranged on either side. The disciples of the London school have some peculiar notions on this subject, especially Sir G. Sordyce and his pupils who are the advocates for the use of opium. It is certain we know very little of the pathology of this inflammation but theory. I have no distrust whatever as to the treatment. In the very early stage we are to carry the Lancet as far as possible. I do not care much about the pulse, it is never active or strong and perhaps is depressed in proportion to the violence of the inflammation. This disease is ~~more~~ rapid in its progress than any other and if not at once arrested will soon prove fatal. I draw away ℥xx. or ℥xxx. of blood at once. If this is not productive of relief, I repeat it in the course of the day. But in this case V.S. by itself is not sufficient to accomplish the cure, it keeps the disease under, but it will not exterminate it. There we may employ with great advantage topical evacuations, ℥viij. or ℥x. by cups or leeches. We now resort to

④ Opium and calomel useful — Heri Spts of Turpentine is well suited.

⑤ Much recommended by Dr. Abercromby. Not used in inflammation of the pulmonary organs, nor in inflammation of the bowels, "a fortiori" not proper in Peritonitis.

copious perspiration, this sometimes operates as a charm. I have 31
known it effect an immediate cure; even where the lancet seemed to be fu-
ther demanded. Here diaphoretics operate by a centrifugal force, determin-
ing the blood to the surface of the body and inducing perspiration by which the
interior vessels are relieved. External means particularly the vapour bath
are preferable: in some cases they may be conjoined with diaphoretic medicines.
Of these I prefer the Dovers powder. Perspiration renders the pulse soft and
produces a remarkable relief in all the symptoms. Having some years ago seen
the remarkable effects of a profuse sweating in a case under the care of two of our
ablest physicians, I have since frequently employed it and very early in the
disease. I always however premising bleeding freely; many disputes have also ex-
isted as to Blisters. I believe they are very beneficial when well timed, as we
should precede their use with warm fomentations and by depletion. All in-
flammatory diseases should be mitigated by the lancet, before Blisters are di-
rected. This remark is very true as respects peritonitis. Blisters are always injuri-
ous at the commencement of the disease and are therefore always to be preceded
by warm fomentations. These are best applied in the form of a common poultice
of Bread and milk, to the whole of the abdomen, or of a sack partly filled with
common mush, so that it can be accommodated to the surface of the abdomen.
It has lately been contended that the poultice is as serviceable in the inflam-
mations of internal as those of the external parts. Whether the proposition is true to
this extent, I don't know. But you may rest assured that they afford the greatest
relief, not only by assuaging pain, but also by making an important impression on
the system. Cold has been recommended, but I doubt its efficacy. ^{to the abdomen} Attention
to the Bowels is not a leading point in the treatment; free evacuations procure no
mitigation of the symptoms, but they should not be entirely overlooked. Here a
soluble state of the bowels is proper, but nothing more. Large Enemata act as
fomentations and are therefore useful. Such is the practice as laid down

- ④ "Here the violence of the pain and tenderness on press are must be the chief criterion to determine our practice."

Loosening of the abdomen - pulse quick & tremulous,
tongue dry in the morning - anxiety and distress

Morgagni. Broussais says the ~~peritoneum~~ pleura has been found entirely destroyed by suppuration & inflammation.

by all practical authors, and influenced by their authority, I have followed³⁹ it. But I am not certain that this is sound in doctrine or correct in practice. No reason can be assigned "a priori" why purges should not be as useful here as in other cases. Their utility is striking in an analogous disease. Puerperal fever undoubtedly in all violent cases is nothing more nor less than peritonitis. yet here purgatives are universally acknowledged to be of the highest importance. This practice in genuine peritonitis deserves a trial. This is a disease replete with danger and which demands vigorous practice. In general it is sufficiently well marked to advantage the practitioner of its true nature: but this is not always the case. Now and then the depression is so great and the pulse so weak that it will not do to urge our remedies too far as the system will not react. In such cases we must resort very early to the warm bath and to diaphoretic remedies. V. S. also should be moderately and frequently employed. By these means we unlock the case after a while, and the inflammatory symptoms becoming well marked are to be overcome by active depletion. These are very apt to deceive the practitioner. I have had three or four cases of this kind in one of which I was completely lulled, that I was not conscious of the nature of the disease till the vomiting of dark matter occurred.

I have also observed that there was a chronic form of Peritonitis, such cases are very obscure; they approach slowly week after week or after several months, there being no one symptom to excite alarm, these have been observed by Mr. Sutton, the observation has been confirmed by Mr. Pemberton, when the inflammation is unsubsided, gangrene and mortification issue, as marked by a sudden remission of the pain, by sinking of the pulse, which becomes exceedingly frequent and tremulous, by cold, clammy sweats, &c. As soon as we have any suspicion that such is about to be the termination of the case, we should resort to the

40 In Chronic peritonitis we find the blood vessels of the
abdomen enlarged & distended - The same in
the primary form
Found generally among the lower class of people - mesenteric
excudation adhering to the peritoneum - adhesions - thickening
of its - hydatids attached to it - intestines agglutinated together -
Abdomen sometimes filled with a whitish tubercular con-
creting curdled milk - Sometimes tuberculated -

Spts. of Turpentine. many years ago this article was employed to check 41
vomiting in malignant fevers. But with the view of stopping gangrene it has
only been employed in the last 12 or 18 months. I tried it at that time and
so satisfactorily that I am very confident it is a very valuable remedy, at
that juncture, when inflammation is about to terminate in gangrene. In
a late publication I find that a Dublin practitioner recommended the Spts.
of Turpentine in small doses in puerperal fever as the most efficient remedy even
in the early stage. I should not use it in the early stage, but exactly at that
point when gangrene is commencing. It is however I think useful in the early
stage when there is great debility. The usual doses are grs. x. xv. or xx. These
must be totally ineffectual: I never gave less than ʒss. every 2 or 3 hours. Be
not surprised at this quantity as often in cases of Tania, sc. ʒij. are given. This
I have often done and the patient has had no other sensation than from tak-
ing a glass of ardent spirits. This then is to be resorted to under the above circum-
stances. In all there is occasionally a little soreness of the abdomen distinct
from tormina and ~~tenesmus~~ or flatulency, the pulse is accelerated, the
tongue more or less furred in the morning, some thirst is complained of, there is
no fever, no heat of the surface, the face is pale with an expression of lang-
uor, and distress; the patient continues about and engages in his usual bu-
siness, till by some circumstance the stage of the disease is excited, on this ac-
count it is much more serious than the former, as the system has been previously
weakened. In all inflammations great danger exists, when an acute stage
succeeds a chronic form of the disease. the people become habituated to a wrong action,
that it is not in our power to change; this we may see in consumption, in hydro-
cephalus and also still more strongly in mania. The same is the case before us
in Peritonitis, when an acute form succeeds to a chronic one, It is always very
dangerous. In such cases of acute inflammation of the peritoneum, all that we
can do is to pursue the usual plan. When however we suspect the existence

lateral pressure from the sides to the centre

is intosusception a large and or the
crucial, when phlegmonous & of topi-
 bleeding pomentate and blister to
 the abdomen & externalises from spinal
 irritation a blister to the back to avoid
 relapses

apoplexy in general, or a stupor with
 the white of eyes

"The pain in colic, I think in a great measure depends upon the distention
 of the intestines - not on the contraction."

bowing of hairs thin and sometimes of shivering
 another, small & frequent pulses,

"The usual appearances to be observed on the dissection of those who die of colic are, a
 slight inflammation on the surface of the intestines, distention and irregular contrac-
 tion of some particular part of the tube, or the passing of one portion of it within another,
 to a considerable extent, the part received within the other being in a contracted
 state." intosusception generally occurs in the
 ileum & is related from eating food
 knots & tumors are formed,

of a chronic disease, we ought to keep our patient at rest, ^{Page} bleed occa 43
sionally and strictly and rigorously adopt the whole Antiphlogistic treat-
ment. It is said ^{by the French writers} to be incurable when from long standing disorganization
has taken place; but early employed we can do something, as V.S., purging,
Blistering, Low-diet, &c. &c. - rest - and the whole antiphlogistic plan.
After these I w^d give Cal: opat: Emet: + Spicac: -
if anopical effusing Diuretics -

Colic. Colicus

The next intestinal disease to be noticed is Colic. This is a very common and
distressing affection and frequently demands all the resources of our art. It consists
in a painful distention of the Epigastric region, a sense of twisting at the umbilicus,
with nausea and vomiting, obstinate constipation and spasm of the abdominal
muscles. Nosologists have divided this into numerous classes, some of which are
extremely obscure. For the purposes of practice which should only be attended to, I
shall consider it under three heads which I think will embrace the various forms
of the disease. These are 1st The Flatulent colic, 2nd The Bilious colic,
3rd Colica Pictonum. *summer adlain*

The Flatulent colic is known by the constant discharge of wind which at-
tends it and by its causes. It arises from indigestible food remaining on the stomach,
especially from cabbage, constipation, also from cold, especially from cold to the ex-
tremities; When it arises from indigestion there is considerable pickness & spasmodic
pains, attended with obstructed bowels. The cure of this species is very distinctly in-
dicated. The stomach is to be relieved of the substance which distresses it -

The following is an excellent prescription -

R - ^{sp. of} ~~oil~~ of Turpentine - ℥j.

oil of mint - ℥j - m - dose 40 or 50

drops on a lump of sugar every 3 or 4 hours -

Warm water - sip a tablespoonful now & then -

③ Oil of Cardamine -

Water ℥ij - sugar ℥j - make a syrup - then

add - Ether - ℥j. shake it up in a vial - Excellent
R see rub fc ℥j
sp. rubin fl. ℥j m

Diagnosis, in enteritis the pain is constant
in cholera it is spasmodic. In the latter
it is relieved by pressure and much
flatulence, also resembles hernia, see the groin

Prognosis where feces & urine are
discharge with a warm relaxed
skin and normal pulse, on the
contrary sunken abdomen, tense pulse,
stercoraceous vomiting & prope feces
pathology. The whole of the alimentary
tube may be involved or particular parts
generally at the illea colic valve
sometimes referable to muscular and
nervous irritation, generally to irritation
of the muscular coat. Hence the irregular

⑥ Icyeta may bring it on - also exposure to cold, &c. - { connect

⑦ we have here sometimes too, the illea passion -

This is best accomplished by frequent draughts of warm water or 45
Chamomile Tea; After thus emptying the stomach we must calm irri-
tation and further vomiting by the administration of Opdials and Anodyne pp.
such as warm toddy, Ether, Hoffmanns anodyne, and above all Laudan.
Esence of Mint, Cinnamon, Ginger, Spts. of Turpentine,³ &c. When the
flatulent colic is produced by cold we are to resort directly to the above reme-
dies without previously evacuating the stomach. Warmth here is of great im-
portance; it should be applied to the feet, to the stomach and abdomen by mea-
ns of heated bricks, bottles filled with hot water, bags filled with heated sand,
ashes, salt, chaff, oats, or other similar article. This heat frequently relieves the sym-
ptoms immediately. After the pain is removed and the irritability of the stomach
is allayed, it is then necessary to open the bowels to perfect the cure and to pre-
vent a relapse. The means which are best for this purpose I shall frequently
detail. I must not quit this subject without reminding you of the great
difficulty and danger which often attends; very frequently the vomiting is
tremendous. I have known a case of the Illiac passion produced by eating
cabbage in which for several hours the patient vomited pure feculent mat-
ter, upwards of a quart was discharged. This is the only case which I have
ever seen of the illiac passion; previous to it I had my doubts of its existence.
The woman died as is the case in all the instances of this distressing affection.
Emetica of opium when we fail to open the bowels, calms the stomach, &c.

Bilious colic is endemic to our country and especially the U. States.
It has ~~as~~ I think very correctly been considered as a form of bilious fever falling
on the bowels. It is generally produced by the usual causes of our autumnal
fevers, occurs at the same season, invariably comes on with a chill, is marked
by accumulations of bile and high arterial action; there is severe pain at the
umbilicus, violent retching, and vomitings³, the head is often affected, also

160th depraved vision is common - sometimes things appear inverted - i.e.

② Captain of a ship -

Dissection the find the stomach ~~and~~ small intestines more afflu-
the liver, i.e. more congested - than in flatulent colic

the eyes; I have seen one case of total blindness which remained for 6 or 8 47
hours. The symptom which distinguishes it in every case from the other forms of
colic is that it comes on with a chill. This is a uniform and inseparable occur-
rence. I never knew of an attack of bilious colic without the presence of this chill, which
may therefore be considered as a pathognomonic sign. This was first pointed out
as such by the late Dr. Rush. The Treatment may be laid down in a few words.
As the disease is highly inflammatory and accompanied with spasm
bleeding is the first remedy and is most imperiously demanded - By copious
depletion with the Lancet I have seen the disease at once arrested, and in all
instances greatly weakened. But to obtain this result it must not be sparingly em-
ployed. In a tolerably robust constitution 3xx. or xxx. may be taken at one bleeding -
If by this practice we do not gain all we expect we at least guard against this
inflammation and facilitate the action of other remedies. This circumstance
of facilitating the action of our medicines will prove of great consequence in the
future treatment. The leading indication here is to open the bowels which are
very obstinately constipated. Cathartics would here appear to be the proper
means, but on account of the disturbed state of the stomach, they will not be re-
tained, therefore we must endeavor to tranquilize the stomach. This must be
done by the usual remedies for that purpose particularly by the Lime Water
& Milk, or by large anodyne injections. Opium has been greatly recom-
mended, but I must believe it to be a precarious remedy when given by the mouth,
as it is generally rejected, but it should be tried as it sometimes had a happy
effect. But recollect that Laud: is not to be given; the pill is much more
likely to be retained, especially if it has been long kept. Enema of Laud: are more
to be depended upon. The Warm Bath in these cases is not to be overlooked.
It is of great efficacy, sometimes acting like a charm. I have seen violent vomit-
ing instantly checked by placing the patient in a warm bath. If this should
not be the case, it is always highly pleasant and grateful to the patient. If

4) Sometimes warm water by distending the bowels - Cold injections overcome the spasm - A large anodyne Enemata useful also by overcoming the spasm - Dr. Physick ordered 300 guttae of laudanum in this way which was successful -

6) Dr. Chapman says in one instance he has seen a cigar used for this purpose - putting the lighted end in the mouth & the ~~mouth~~ other in the rectum, and blowing - Observing at the same time that it was a rather disagreeable way of smoking a cigar - he also relates the case of a student who got completely bombarded in the experiment -

these means should fail, I would repeat the bleeding copiously and then resort to aperient enemata, composed of oil, salt or Molasses in a pint of warm water. But the best injection is a strong infusion of Senna with ʒj . of Salap; one pint or more being thrown up at a time. Much benefit is derived from the Herbertin-thinate Glysters, particularly where there is an accumulation of wind. The best mode of preparing it is to take one or two table spoonfuls of oil of Turpentine, mix this with the white of 2 or 3 eggs and add the whole to a pint of water. As a remedy in obstinate constipation, Tobacco, suppository, infusion; fumes given through a pipe. Cold water is of great service, it is either dashed from a height on the abdomen or one pint injected into the rectum. This last was a favourite remedy of Dr. Rush, and I have seen it very effectual in his practice as well as my own. One pint of cold water is to be used as a glyster, the colder it is the better, cold spring or even ice water is preferable. ④

The Tobacco Glysters have been much extolled, but they should only be used in desperate cases; as by it the vital powers are sometimes greatly depressed. I have had a case in which it required all my exertions to restore my patient. It is usually prepared by infusing ʒj . of the leaves in a pint of hot water. But I would not use more than half that quantity. Another method of using the tobacco, is by the smoke conducted into the intestines. There is a complex apparatus for this purpose, but I have often used a common tobacco pipe. The bowl is filled with the article and ignited, the pipe is introduced into the rectum, by blowing in the bowl taking care to protect yourself from the fumes by means of a rag over the bowl, the bowels will be speedily filled with the smoke. ⑤ In one case I have seen great relief by this practice. To obviate the danger of the tobacco injection, Mr. Earle has proposed that it be used as a suppository. A roll of the leaves being introduced into the rectum, it can be withdrawn as soon as its effects become apparent. There is another injection which I have found very useful; that is a Solution of Tart. Emet.

① Dr. Hosack of New York found the bowels to give way in Bilious colic, by puking the patient with Tart. Emet. -

My own experience in nearly similar cases confirms this practice. Dr. Physick thinks well of the Emetic practice also -

Purgatives combined with any Emetic article - often successful -
egs. of Rhub: and $\frac{1}{2}$ or $\frac{1}{4}$ gr. of Ipecac^a or $\frac{1}{4}$ of Tart. Emet. or
give a purge and then a small dose of an Emetic article alternately.

② Enemata of Laudanum useful - they relax the bowels
and thus the spasm is subdued - and the bowels give way
by this spasm being overcome - favorite practice of Dr. Physick

In Ileus, Anodyne enemata are the best. Put the patient
under the impression of opium by it and let him go to
sleep - when he awakes the Peristaltic motion of the in-
testines draws out the inveterate portion -

A The esophagus catheter with a large bladder to it -
The introduction of a mole candle up the rectum, acts by
distention -

③ When the bowels are very irritable stimulating articles are apt to in-
crease the ~~spasm~~ spasm - & thus milder ones are here preferred -

④ Senna is apt to gripe - many articles prevent its griping - Ginger - Licorice.

⑤ Croton oil useful - guttæ $\frac{1}{2}$ - as active as 3j of Castor oil
1 gutta made into pills with cons. rose of rose, -

gr. xx. or xxx. being dissolved in ℥ij. or iv. of water. I have used as much ℥. as ℥j. of Tart. Emet. in some cases. This produces a greater degree of relaxation than any other medicine and is often attended with signal advantage. On this account it has been objected to and it should be employed only in obstinate cases; this property renders the Tart. Emet. injections valuable in other cases. I was called a few days since to a child, who was suffocating from a piece of meat being lodged in the oesophagus, not having ~~no~~ probe with me, I injected gr. xx. of Tart. Emet. into the rectum, in a few minutes the relaxation was so complete, that the lodged article dropped into the stomach.

The last means to be noticed Mechanical distensions. There is a syringe constructed for this purpose, the advantage of which is that it can constantly be replenished. In this manner 3 or 4 quarts should be thrown into the rectum or rather bowels: cases however requiring this practice are very rare. When by these means we succeed in allaying vomiting, then Purgatives are to be resorted to. It is customary here to resort to the brastic cathartics; but in many instances I have known these to fail in evacuating the bowels when the milder ones were successful.

The Magnesia and Lac Sulphuris genus is very effectual. There is very often a relation or affinity between medicines and state of the system which is of great importance to attend to. This has been called Medical Harmony and consists in the proper gradation of medicines to existing circumstances.

Castor oil or Epsom salts ^{summa} are much used in these cases, but what I prefer to any thing else is the combination of Calomel & Opium. gr. iij. of opium with gr. x or xv. of cal: administered when there is great emergency every 3 or 4 hours; when the opium acts the spasm of the bowels gives way; the cal: then produces copious evacuations. By using the opium with the cal: the irritability of the stomach is quieted and the cal: is more readily retained.

This combination I would wish you to remember as there is nothing which

Spts of Turpentine very useful -
 Turpentine — ʒi.

.Castor oil — ʒi. forms an excellent purge — particularly adapted to flatulent colic —

③ The bowels immediately give way - on a typhus being induced — Give it internally & rub the surface with the mercurial ointment to induce a hasty salivation —

Sen. Hapack mentions a case, where the bowels reman obstructed 21 days, & cal: was given all this time - They then gave way, the breath becoming affected -

④ Devonshire is a great cider country. The practice of correcting the acidity of cider by Lead -

⑤ By Sir George Baker.

It is also said that the bags of the work man at smelting furnaces hang up in houses induced it. My newspapers just from the press - see. Sometimes Epidemic -

I believe is so valuable in this complaint. Cups. & Leeches — 5.
Blisters to the stomach and abdomen are often indispensable. They relieve the spasm very frequently when everything else has failed; they should be large and often repeated.

Mercury after every thing else has failed. induce as rapidly as you can salivation — I never knew a patt. die in Colic, after salivation has been induced. It also prevents gangrene —

The third form of the disease which I have to notice is Colica Pictorum. This was formerly very common in this place, but at present is very rarely to be seen. I have not had a case of it for the last 3 or 4 years. It is named from Pictou in France where the disease is epidemic, in England it is called the Devonshire Colic for a similar reason. It was formerly supposed to be produced entirely by the fumes of Lead. But it is now ascertained to arise from various other causes, as cold, unripe fruit, acid drinks, Lemonade, Vinegar, Flatulent vegetables, as cabbage, accumulations of bile, The fumes of Lead are no doubt most frequently the cause of it, but not so universally as has been imagined. Thirty years ago it excited great terror. Hops, &c. were seized with ^{it} in the vicinity of smelting furnaces, &c. Relapses were said to be induced by wearing the same apparel.

It comes on slowly, with pain at the pit of the stomach, which gradually extends downwards over the intestines, there is a sense of twisting around the umbilicus, eructations, nausea, vomiting, great thirst, anxiety, obstinate costiveness, and at the same time a frequent desire to go to stool, the pulse is small, quick and corded in which it differs from the bilious colic. where the pulse is full, strong and voluminous. cases are recorded where the pulse was but little altered. In a short time the pain increases and spreads over the whole abdomen, which becomes soar and tender. The muscles are violently contracted and drawn into a knot. the intestines are also

54 "The severity of the pain round the navel, the retraction of the belly, the costiveness, the pulse, and the preference given by the patient to the bent position of the body, will readily distinguish it."

② Sensation as if some person was drawing him in two -

③ Swelling sometimes of the great toe, resembling podagra -
Duration - sometimes it will remain a long time with occasional remissions -

④ It is a curious fact the drastic purgatives do not answer in Colica pictorum.

52
affected with spasms so that a glyster pipe in some cases cannot be in-
troduced, there is a vomiting of a dark ^{coar-}porable, the head becomes exceed-
ingly distressed, which is succeeded by nervous tremors, and often by paralysis.
most violent pain across the loins, the sight much depraved, vision being dou-
ble and often total blindness being the consequence - pain extends to the ends
of the fingers. It sometimes terminates in Epilepsy or chorea. Post mortem
appearances, ^{are said to} resemble those of colic, but I would suppose the prima via
much affected, together with disorganization of the brain.

The Indications are much the same as in bilious colic. All agree in
the propriety of early and copious bleeding. As the disease is one of much ve-
hement and danger, it must be carried to a great extent, notwithstanding
the pulse. After this the bowels are to be opened in the manner already specified.
As it is a spasmodic complaint, opium and other Antispasmodics are pre-
ferred to purgatives by many practitioners. There indeed cannot be any doubt of
their efficacy in some cases. By the early exhibition of opium the spasm is often
relieved and the disease subdued - Opium is usually selected; I however al-
ways combine it with cal: as already detailed under the head of Bilious colic.
These means failing we must resort to purgatives. Castor oil is as it were conse-
crated to this complaint; it is preferred by the practitioners of the West-Indies,
where this disease prevails to a great degree; to all others altho' it is no doubt ben-
eficial, I believe it less competent than the cal: and opium. But owing to the great
irritability of the stomach we will often be disappointed in our purgative
medicines. It is here that the Epsom salts are serviceable; it may often be secured
to with unequivocal advantage - But in addition to these much has been
recently said of the power of cold applications to remove constipation, either
as cold water dashed on the abdomen or on the extremities, or injected direct-
ly into the rectum. There can be no doubt that this is often effectual, as we

② Also Nitrate of Silver - Dr. Roberts cured 2 or 3 cases of this disease with it. He gave ~~2 or 3~~ grs. and increased it to 5 grs. 3 times a day - 4 or 5 grs. every 4 or 5 hours - acts as a purgative, so much so, that he had to combine opium with it to restrain its action.

have the united testimony of the most respectable writers of the West-Indies. 54

Lately a writer of some authority has affirmed that no article is so advantageous as the root of Guaiac. It is said often to instantaneously reduce the spasm and to act as a purgative. This account is not improbable; it is unquestionably true, that in the spasmodic affections of the stomach & bowels from Gout. It is very effectual in relieving the spasms and in opening the bowels, but it should be in the largest possible dose, even in the quantity of ʒss. and never less than ʒij. Tobacco.

As in other bowel complaints a large Blister over the abdomen is productive of much advantage - Constipation being removed the disease becomes much more manageable. There is generally some spasm remaining and some pain. To carry off these remnants of disease ^{and mitigate pain} combinations of opiates and laxatives form the usual treatment also anodyne injections. Percival and others recommended Alum gr. x. or xv. every 5 or 6 hours. It has been more insisted on by Mosely who gives it in his vitriolic solution. containing about equal proportions of white vitriol and alum. The bowels being previously opened the dose of this is ʒss. every 4 or 5 hours. He says that it relieves the spasms and other symptoms. he also advises it to be taken to prevent a relapse. ʒss. of it for several days every morning. I have no experience of alum in any of its forms. In all these cases I invariably resort to Mercury to bring on a salivation. This is no new practice. 50 years ago it was had recourse to by Dr. Warren & Wallace of London and more recently by Clitherbuck and other authorities. There can be no doubt of its efficacy; as the mouth becomes affected the disease invariably yields. I have known an instance to the contrary. By salivating we prevent the palsy so frequently attending Colica pictorum; and this is the only means we possess of curing it when it has taken place. My practice in this disease may be briefly summed up. In the first instance I resort to copious bleeding, then to large

© Violent paroxysms of anger.

Sometimes Epidemic. I have known it so in this city - Frequent
in India - It

Calomel and opium to evacuate the bowels and employing as auxiliaries, injections and Blisters. After the intestines have been opened I salivate as soon as possible if there be any spasm or tendency to paralysis. But if I had another case I would begin with mercury early in the disease; administering it internally and by frictions, I would trust chiefly to it, as I have been so much pleased with it in the latter stages. The disease is very liable to recur, a relapse is to be prevented by avoiding the exciting causes of the disease, the body and feet should be kept warm, flannel being worn next the skin. A flannel bandage to the abdomen has been recommended; its efficacy I can readily acknowledge, having for a long time found warmth to the abdomen very serviceable in obstinate diarrhoea and other bowel complaints.

Sugar of Lead is a counteragent of mercury, and mercury of lead. This has been suggested and it is not without some foundation. —
Nothing like a Salivation in this disease.

Cholera Morbus.

The disease which is marked by bilious discharges, both upwards and downwards, accompanied with violent gripings and spasms is known by the name of Cholera Morbus. It occurs chiefly in warm weather, but is incident to all seasons and climates, as the bilious colic and other kindred affections. It may be considered as a force thrown in upon the bowels. It occurs in the same season, arises from the same cause, and is treated by the same description of remedies. Now and then it may be traced to other causes, as irritation to the alv. canal, to indigestible matters; but this is very rare and perhaps never occurs unless there is a predisposition already formed. In addition to the symptoms already ~~formed~~ mentioned there is considerable

Prognosis. Danger imminent when the vomg. and purg. is attended with
 great prostration of strength. ^{intermitting pulse,} ^{short hurried respir:}
 cold surface - tumid abdomen - hiccup - low delirium, &c.
 Favourable subsidence of vomiting, succeeded by sleep. gradual subsi-
 dence of all the symptoms.
 restoration of the temperature - gentle moisture.

Dissections. Inflammⁿ of the bowels - tympan^{ism} of
 the vessels - congestion of the liver.

pain, tenderness of the abdomen, distention and flatulency. As the disease advances the pulse which is at first weak and fluttering becomes still more so, and is attended with great depression of system. There is a damp pallid surface, cold extremities, ~~depressed~~^{hurried} respiration, restlessness, thirst and considerable gastric distress. There is often spasms of the limbs and of the abdominal muscles, attend this stage of the complaint. It has been remarked that this disease resembles several other cases of the intestinal complaints, and the symptoms certainly shew a great analogy. There is however something that is peculiar, it differs from colic, in as much as the bowels are not constipated, and from dysentery and diarrhoea, in as much as pure bile is discharged unmixed with blood as in the former disease, and with feculent matter as in the last.

I believe that cholera is a gastric affection in the primary instance; & in the primary irritation is extended by sympathy to the liver. To this conclusion I am led by considering the causes of the disease; as Cold constringing the extreme vessels, Marsh miasmata, which produces the affections of the stomach and intemperance in eating or drinking. Moreover the first discharges from the stomach consists solely of its usual contents - no bile appears till the subsequent vomiting. The liver being once placed under this impression is continually stimulated and discharges an increased quantity of bile. Nor is there any reason to suppose that there is any unusual acrimony in the bile. But remembering that it possesses less of these acrid properties. From this view of the nature of the disease it might be supposed that the early indication would be to remove the original irritation from the stomach; but this is not the case. There are numerous examples to be found in the history of medicine, in which altho' the theory is perfectly correct, yet the practice cannot be deduced from it, in none is the observation better exemplified than in the disease before us. In general the secretion of bile is so copious, and the contents of the stomach is so irritated, that the disease will not yield till this is carried off - occasionally

however this is reversed and all that is necessary is to calm irritation. Thus 63
I have known Opium by itself quickly relieve all the symptoms. The best is
a powerful anodyne enema to make a considerable impression. But
in common cases the stomach must be divested of all its irritating contents.

This object is effected by almost every practitioner by the copious use of diluent drinks. Chamomile Tea, Barley water, warm water, chicken water, have been prescribed; they should be freely employed. This practice
is very ancient; it will be found in the earliest details. But whatever credit it may
have gained, or whatever merit it may actually possess, it was certainly instituted
on a false theory. It was supposed that bile was the whole cause of the disease
and that it was to be removed as any other acid matter. The treatment therefore
is very similar to that which is pursued when poisonous articles have been swallowed, &
the whole object was to wash out the offending substance. Why the stomach should
be so deluged with fluids in preference to evacuating directly by Emetics
I could never discover. I however determined to try Emetics. In several trials
I have never found the slightest objection to their use. Called to a formidable case
of cholera, I immediately prescribe gr. xv. or xx. or more of Sp. C. C., and assist
its operation by some warm drinks. By this the stomach is relieved, the system
reacts, the case becomes infinitely more manageable. It not only evacuates
the stomach but also possesses some antispasmodic powers, relaxes the surface,
&c. The next object to be attended to is to calm irritation, and remove the spasm.

For this we have several remedies. Bleeding is indisputably the most im-
portant. here as in all other cases, it is to be regulated by the present condition
of the system. The pulse is not our only guide; it is often small and depressed.
If the patient has violent pain and only an ordinary degree of rigour, we may
employ the Lancet, and we will find that the pulse will rise on the occa-
sion. you may take it as a general rule, without a single exception. That in the
early stages of all diseases, where there is much pain and a weak pulse, that

① *Pani* is the criterion, and not the beating of the pulse.

② as irritability of the stomach -

③ Calomel in small and repeated doses is well calculated - Sulphuric acid has been used by the West India Practitioners.

Sugar of Lead has been recommended, I do not doubt its utility

④ also Linapum to the stomach — also extremities

65
this weakness does not rise from a state of exhaustion, but from a depression of the system which is to be overcome by depleting remedies. But this evacuation is to be conducted with caution, as in some cases the system does not react immediately or that the accumulations in the large viscera are too great, (so that the general circulation is too empty) to be suddenly removed. Hence a sudden evacuation would be very dangerous and in some instances has been attended with fatal consequences. I have known the patient die before the arm could be tied up. Therefore the bleeding should be conducted slowly, and allow time for the restorative powers of the system to be brought into action, a few ounces should be taken at a time, the arm be tied up, and after a few hours the propriety of taking more will be determined. In doubtful cases it will be more prudent to employ the warm bath. To this case it is peculiarly suited, as by the universal impression which it makes on the system. The system is usually aroused and a relief is afforded to the spasms and other distressing symptoms. Much has been said of the powers of opium; this is above all other remedies in this complaint. It is given either at once, or after evacuations have been premised. But I think it is most advantageously employed in the form of Enemata every 2 or 3 hours. When from any circumstance we administer it by the mouth, the solid state is to be preferred. An opium pill will often be retained when Laud^m would be immediately ^{rejected.} To the same end to abate irritability and relieve pain warm fomentations are used with decided advantage. They are always comfortable to the patient, and are sometimes of permanent utility. The best is the cloves quilted between two cloths and wrung out of hot Brandy as formerly noticed. Most of the remedies for checking vomiting are to be had recourse to, especially the Seawater and Milk. If these remedies fail we must resort to Blisters over the stomach; and if there be a tendency to sinking, also to the extremities. In a large majority of cases these means when judiciously employed

66 Depicate the skin by 2 parts of water and 1 part of nitric acid,
then apply a solution of the carbonate of Potash to neutralize it,
and prevent its further action —

② Spirits of Turpentine, also hot Brandy & ody are useful.
Turpentine internally.

R. Nitric acid 3i

Camph. Mixture 3viij

Laudanum 60gt. Dose a table spoonful 4 or 5
times a day.

will prove successful. but sometimes all our resources will be called forth 67
and often ineffectually. I have known the disease to terminate in a few
hours; these were however of a very malignant kind and occurred during
the prevalence of the yellow fever. ⁹ I have however known it in ordinary
occasions to terminate in 24 hours; in one case in a much shorter period,
it was induced by eating largely of water melons at dinner and proved
fatal by 9 or 10 o'clock in the evening. This disease is very liable to recur-
rence. To prevent a relapse, all the exciting causes are to be studiously
avoided, such as exposure to the sun, to the night air, also excesses of
every kind, improper articles of food, inordinate exercise, violent pas-
sion, cold to the extremities, especially to the feet, the bowels also shoul-
d. be attended to and kept in a soluble state, for this Magnesia ^{Rhei} and
other mild Laxatives are occasionally to be resorted to. we should also
endeavour to restore the tone of the bowels by bitters as Quassia or
what is still better by Columbo. ^{Elixir Vit. c} The use of flannel is not to be over-
looked, it should be worn next the skin. I know of no better pre-
ventative in this and all other intestinal complaints than the wear-
ing of this article - Salivation by mercury or nitric acid where
a disordered state of the hepatic or chyliferous apparatus tends to
bring on a relapse.

④ Seldom occurs in villages and country either. The predisposing cause of Cholera Infantum, is the warmth and impurity of the air of a large city, during the summer months.

⑤ in protracted cases effusions, re-

⑥ Caliber sometimes much diminished by a thickening of the coats.

Cholera Infantum

This is a disease almost peculiar to the U. States; it is seldom ever to be found in any other country. Much has been written by various authors on this disease, but in none of them do I find an account properly suited to this complaint.

All the time of dentition, children in other countries are often afflicted by various intestinal complaints, but the proper Cholera Infantum is almost endemic to this country. Clephorn in his work on the diseases of Infancy has some few hints on this subject. Considering the mortality of this disease, our own writers have been very silent. I know of but few accounts which have been published; one by Dr. Rush, the other by Dr. Jackson of Boston. A third has been lately published by Dr. Miller of New-York, and by Dr. Mann. To the description of the disease as published by Dr. Rush I beg leave to refer you as containing the best history of it which has been given. The predisposition to this disease is debility which is brought on by the heated atmosphere. The exciting causes are impropriety of diet and clothing, worms, dentition, and numerous other irritations.

Distinct from the causes and ordinary symptoms of the disease, Dissections point out the true nature of the disease. In the brain there is no morbid appearances whatever, the same is true to the contents of the Thorax; It is in the contents of the abdomen that we see the marks of the disease. The effects of inflammation may be seen in the whole Alg. Canal, chiefly in the mucous membrane lining the interior of this tube. on the surface of this a number of dark, livid spots are observable throughout. in the stomach and ^{small} intestines, particularly in the Duodenum ^{near the pylorus}. Sometimes they are to be seen in the peritoneal coat; but this is not so common as might be expected. There is considerable hepatic derangement, the liver is uniformly enlarged, so as to occupy $\frac{3}{5}$ of the cavity of the abdomen. I never saw an instance in which it was not. It is also often indurated but generally flabby and flexible,

70 The eye denotes cerebral affections -
unequal temperature - extremities are cold -
stools sometimes watery - or thick - Green, or blue -
smell of vomitus, &c - The child becomes pallid, & flabby - elevated
spots appear - skin on the forehead stretched - eyes sunken, &c -
Death approaching the symptoms are aggravated - The belly is ten-
derness - want of sensibility. More rapid in its progress when it puts
on the form of cholera morbus or dysentery -

③ Cold damp surface tremulous pulse, haggard countenance,
pus-ting up of green green matter, or
flocula - nervous sensibility or extinction of it - Frequently
ends in typhus cephalicus -

Primary step is an increased flow of bile - In some instances
the stomach and liver are nearly paralyzed and their functions
suspended.

④ A Tea Spoonful of strong coffee without cream or sugar every 15 or
15 minutes -

the gall bladder is filled with bile dark, green or pale - of the spleen and pancreas not much has been said - generally healthy.

Diagnosis.

The diseases most resembling it are some of those brought on by ^{indigestion} ~~indigestion~~.

Prognosis. More embarrassing - death sometimes takes place suddenly - leaving well - when the pulse becomes slower, fuller, & irritability of the stomach ceasing - temperature equal - evacuations more natural.

Children are most liable to it in the second summer. The color of the stools is green, or brown, white or blue, &c. From the history of the disease *Cholera Infantum* would appear much allied to the intestinal complaints which occur in more advanced life, being like most of them, originally a gastric affection. That this is the case and that the affection of the liver is a subsequent ^{affection} occurring through sympathy with the stomach, is proved by the causes, symptoms and phenomena of dissection which have been already detailed, as well as from the treatment which I am now to detail.

Cholera Infantum usually commences with disorder of the Al. Canal, all practitioners admit that the first indication is to evacuate the stomach and bowels, but the manner in which this is to be done is not agreed upon. It is the general custom to administer Purgatives at the commencement, especially the castor oil. In every mild case this may answer, but frequently the disease is so violent and accompanied with such irritability of the stomach, that none of these medicines could possibly be administered. therefore the first object must be to allay this irritability. This is done by casual means, particularly by anodyne injections, lime water, strong Coffee, Sacch. Saturni, warm fomentations to the abdomen and by the warm bath. After this we must resort to purgatives and here except in very young infants, I prefer the cal. and opium. The advantages of which are, that by its insipidity and smallness, it may be very early administered

② of Cal. from grs. to $\frac{1}{2}$ to $\frac{1}{4}$ a $\frac{1}{16}$ of opium.

Cal. in the dose of $\frac{1}{16}$ grs. repeated frequently calms irritability and after several doses are taken it purges -

④ warm bath - frictions, &c.

⑤ Topical Bleeding is also useful, particularly where there is much ^{fixed} pain in the abdomen -

and readily by its gravity it will be retained on the stomach. moreover it e- 73
vacuates very readily and effectually; at the same time abates irritation & spasm.
Adapted as this may be to ordinary cases, it will not answer universally. Often there
is such vehement gastric distress, that purgatives cannot be used. in addition
to this there is considerable heat and fever, pain about the umbilicus and a quick &
irritable pulse. In these instances I have no doubt of the efficacy of puking with
Specacuanha. all however do not act in this way, but I must believe the re-
sults of my own experience. There is great prejudice against the use of Emetics to
effect vomiting. They are seldom prescribed and always with timidity. This
I cannot account for, as certainly where there is no active inflammation, they
cannot reasonably be condemned; They relieve the stomach of irritation and
often impart strength to it, so as to prevent future vomiting, also by diverting to the
surface, they equalise action and determine the disease to the skin. In all dis-
eases of the bowels in which inflammation is present D. S. is to be employed here
as in similar cases, the pulse is depressed, but the phenomena of dissection
and the other symptoms indicate the Lancet. And I have known several
instances in which a neglect of this remedy has proved fatal. I very often bleed
in these cases even several times in the course of the disease and have every
reason to believe with utility. It tranquilises the stomach and composes the
general irritability of the system. But here as in every other case it must be di-
rected by the soundest and directest judgement. After thus preparing the stom-
ach for this reception we may resort to the mucicinal purges. The Calomel may
be given alone or with opium. Calomel is better than the Casta oil. But when
from prejudice, or from any peculiarities of the case we cannot give the calomel
we should administer a solution of the Epsom Salts; this well adapted to cases
where the stomach is irritable; as so far from increasing the irritability, it
even allays it. But after having once thoroughly evacuated the stomach
and bowels, I exhibit no more purges; unless there should be a great accu-
mulation

7/1 Where there is watery evacuations from the bowels, we may be
sure there is great irritation - then small doses of Calomel
and opium, the stools become dark coloured - after a dose of
Castor oil brings them away & establishes healthy secretion.

⑥ interpose occasionally a dose of castor oil -

of bile or other fluids. I believe that we have purged infinitely too much ⁷⁵ in this disease and in other intestinal complaints. influenced by the humoral pathology, practitioners have been in the habit of keeping up a constant purging to evacuate the morbid humours which had kept up the disease. I believe however that it depends on irritation to the stomach and therefore the object should be to do away this irritation. From this view, after having once evacuated the bowels, I resort to those combinations of remedies which will quiet irritation and determine to the surface of the body. much of the fatality of this disease is to be ascribed to the constant and copious purging; indeed what effect can this have on the tender frame of an infant, except to exhaust and debilitate it. The disease sometimes lasts several weeks or all this time I have seen purges administered every other day till the patient died. I then after having once satisfied myself that the bowels are completely evacuated administer opium, cal: & Specac:

Rp. ℞ Opii: --- grj.
Cal: --- grj. vel iij.

Specac: --- grj. vel ij. m. & divide into ^{8. or 10} ~~of~~ pulv. one to be given every $\frac{1}{2}$ or $\frac{2}{3}$ hours. where the pain is very frequent and violent or where the evacuations are very great, the quantity of opium is to be increased, or what I prefer anodyne injections are to be administered; these will have to be repeated 3 or 4 times in the 24 hours. These means will calm irritation and remove the symptoms of the disease, but in addition to those remedies I am not inattentive to those which act directly on the skin. The warm bath is serviceable, not only by inducing perspiration, but for the impression which it makes on the system. There is in this disease great irregularity of temperature, one part being very hot, while another is very cold. The warm bath equalises the temperature, gives a glow to the surface and lessens the irritation of the stomach. But its effects are evanescent and it must therefore be

② On Coming out of the bath Frictions to the surface -

③ The following are excellent

④ Oleaginous mixture - or what is better melted butter, or Lard.
Animal oils more bland than vegetable - to calm irritation and
subdue inflamⁿ - these are very useful

⑤ Lime water, ^{milk} very useful here -

⑥ Spiced Rhubarb useful.

repeated daily or even twice a day. Sometimes when a greater impression is ⁷⁷ wanted it will be proper to add to it salt, pepper, or mustard, or Brandy, or bitter herbs, as by these additions effects will be obtained which cannot be by simple warm water: or what perhaps is still better immerse the patient in a bath of spirits, brandy, &c. To the same end Blisters should not be overlooked they may be employed at every period of the disease, and be applied to the stomach abdomen or extremities as may be necessary. After a few days or weeks this disease usually terminates in Diarrhoea, sometimes accompanied with Tor-
mina and Tenesmus; very often the stomach is much disordered and cannot retain any medicine for restraining the discharge. Here the Alkaline, & cretaceous spts, are useful. R. creta ppt, or finely pulv: oyster shells. . . ℥ij.

Laudanum — gtt. x

Sacch: Alb: — ℥j.

Aq. Cinnam: — ℥ij. m. The dose

is ℥ij. every 2 or 3 hours.

Where the vegetable alk. is preferred. R. Potash. — ℥ss.

Laud: — gtt. x

Sacch. Alb: — ℥j.

Aq. — — ℥ij. m. as the other. — D

Comp: S. of Rhubarb, Lime water, medicated Ssg, also are very efficacious — also Spiced Rhubarb. —

R. Pulv. Rhub. — gr. xvi.

Cal: magnes: — ℥ij

Laud: — — gtt. x

Sacch. alb. — ℥j.

ob. anise — gtt. iij.

Aq. — — ℥ij. m. Dose ℥ij every 2 or 3

hours. This often relieves the Tormina and Tenesmus; but the best remedy for this is the anodyne glyster. Connected with the symptoms there is sometimes great ac-
idity

② The Lacch. saturni is useful.

Rp. Chalk. zij .

Reno -- Zij -

water -- 3 or 4 - Dose a tea Spoonful

Chalybeates - useful

Rp. Sal. Martis. gr ij .

Sulphuric acid -- gtts. x .

water ---

③ Spirits of Turpentine gtts. x - When the tongue is loaded and the
mucous coat much affected - 3 or 4 gutts of the Spirits of Turpentine. Dr. Lewis

of the stomach; one of the best remedies is the following.

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Rp. ob. Ricini. ℥j.

Sacch. alb. — ℥j.

album ovi No. ij. Rub the whole immediately together

and then add gradually and stirring the mixture well aq. calcis ℥v. Laud. ~~℥ss.~~
this will often remain on the stomach when the oil in every state is rejected. As
the disease advances it loses its & distinguishing ~~character~~ symptoms, &
then assumes the form of diarrhoea, the cure for which is very similar to that which
occurs in adults and which I shall soon detail. At present I may mention
some of those remedies which are considered as peculiarly adapted to children.

Alum is the only one of the mineral astringents in which I have any confidence;
℥ij. or iij. with $\frac{1}{4}$ or $\frac{1}{2}$ of opium, a little nutmeg; may be given every 2 or 3 hours.

The Sacch. Saturni has been lately recommended and much employed.
I do not think that it is by any means suited to children. It is not very active
& is apt to bring on or increase the Tormenta of the bowels. Chalk, Rhino, infus.
of Galls & Laud. are useful separately and in combination. Columbo in
powder and infusion has acquired much reputation. But the best is the

Hamatoxylon Campechianum or Logwood in infusion ℥ij being given
at a time. This is the favourite remedy of Dr. Physick for those complaints and
is often of great service. But of all the remedies I have the most confidence in a
strong infus. of the Rubus or Black-berry root. This is to be found in every part
of the States. It is an aromatic & delightfully bitter and a powerful astringent.

It is about 8 years since I have known it, but it has long been employed as a pop-
ular remedy for diarrhoea. It acts very certainly and puts an end to the dis-
charge. so strong is its astringency that a laxative is frequently demanded
after its employment. In preparing it. ℥j of the bruised root is added to pint
of water. The dose is ℥ij. The only remedy however which is sovereign and infal-
lible is a change of air. As long as the patient remains in the city exposed

② Flannel round the abdomen.

continually to the exciting causes of the disease. All we can hope is merely 81
to palliate the most urgent symptoms or afford a relief for a short period, we
cannot cure the disease permanently unless the patient is removed to the country
relapse succeed relapse untill the child sinks irrecoverably. Dr. Rush relates
that in a long practice of 50 years he lost but two children who were taken to the
country. My experience cannot go so far, but there is no remedy so effectual as
a change is sometimes immediately perceptible, even while riding to the place
of destination. When circumstances do not allow this change, the child should
ride or walk out every day in the country and breathe the pure air.

When a country residence cannot be obtained, there is another substitute
in which I have much confidence. It is to expose the child to the air of the
river, the efficacy of which is increased by the motion of the boat. To my
knowledge this has been attended with great advantage: in some of the worst
forms of cholera infantum, with excessive and obstinate vomiting and purging have
been removed by crossing the river occasionally in a ferry boat. As the disease
is very likely to return we should endeavour to guard against this relapse as
well as against its first attack. For these purposes attend to the following direc-
tions. 1st Never let the infant be weaned within the year, maternal milk is
the most salutary and proper diet, and the want of it predisposes the child to
intestinal diseases, especially the cholera. 2nd Direct a cold bath for it daily.

This not only conduces to cleanliness, but preserves the tone and vigor of the sys-
tem. When the cold bath does not agree with it, the warm bath should be sub-
stituted. 3rd Flannel and woostered stockings should always be worn. These
are no less necessary to children than to adults. The feet are the great avenues
to intestinal complaints and should therefore be protected. I have known an
obstinate case of diarrhoea overcome by the use of woostered stockings.

4th As to Diet except in the use of fruits should be forbidden. unripe fruits
and all unwholesome food should be avoided. Milk with farinaceous sub-
stances

820. Lago, Tapioca-use, n

③ Ripe fruit sometimes useful here —

④ Dr. Rush says he never lost ^{but 2} ~~a~~ patts. with Cholera infantum,
when fresh air can be obtained.

forms a proper diet, arrow root,³ this sift ground or well powdered, mixed with milk is very common and a wholesome article. After a few months a little animal food may be allowed. ² 5th At the time of dentition the teeth should be frequently examined and if any are found penetrating and the gums inflamed they should be freely lanced. The effects of dentition are truly extraordinary; I have seen it produce coughs, depraved vision with blindness, many of the symptoms of hydrocephalus, very frequently intestinal complaints. hot weather predisposes to these complaints. Some persons are prejudiced against this operation of lancing the gums, but with no good reason. We know that in the protrusion of the teeth the gum is not mechanically pierced, but it is absorbed. and we know that cicatrices are more easily absorbed than original formed parts and therefore in these cases the cicatrix if one should form will not prevent the passage of the tooth.

But the best preventative to this complaint is a removal to the country, which should always be accomplished when it is in any way accomplished when it is in any way possible. ⁴ January 1818; it is a curious fact that this city which a few years ago was desolated with the Cholera Infantum is now almost exempt from it. 3 or 4 years ago I had always from 100 to 200 cases in the course of a year. I do not know that I have been called to 6 genuine cases of this disease. to what this is owing is very doubtful. Never permit a child to be weaned within the year.

Mother's milk best.

Cold bath promotes cleanliness & imparts tone to the alv. Canst delay the wearing of flannels next to the skin
Be careful of diet.

Symptoms of Dysentery from Cullen - "It comes on ^{sometimes} with cold shiverings, and other symptoms of pyrexia. The belly is costive with an unusual flatulence in the bowels. Sometimes, tho' seldom, some degree of diarrhoea is the first appearance. In most cases the disease begins with griping, and a frequent inclination to go to stool. Little is voided, but some tenesmus attends it. By degrees the stools become more frequent, the griping more severe, and the tenesmus more considerable. There is loss of appetite, and frequently sickness, nausea, & vomiting. More or less pyrexia - Sometimes the fever is manifestly inflammatory."

When the discharge is white. it is called Dysenteria Alba - Sometimes substances resembling cheese - This is a morbid secretion of the intestines. Also mixed with blood - There is fever - heat - furred tongue - restlessness,

Dysentery.

Dysenteria. or — Dr. Cullen has defined this disease to be a contagious fever accompanied with mucous or bloody evacuations by stool, with griping and followed by tenismus. The faces are generally retained, or else voided in round, hard balls or scybala. with the exception of contagion which is very rare occurrence, I do not think ~~but~~ this definition can in any way be mended.

I will also give you the history of the disease from the same author, which is indeed very excellent (See Cullen in addition to what is there said.) I have only to add that Dysentery sometimes occurs where there is no evacuation whatever. This is by far the most dangerous form of the disease. Much has been said of the causes of this disease. It was once believed to originate solely from contagion. But now it is ascertained, that this by no means is universally the case, but a very rare occurrence. A recent writer has affirmed that it is only contagious where it assumes the Typhus form of fever. This I think is perfectly sound and correct.

It has been supposed to arise from the evacuations of the patient; or from a particular effluvia from those discharges when in a putrefying state; but there is no evidence whatever of either of these, and it is incredible that it should be so, for if the various evacuations would produce this, we would have the disease of a very diversified character as produced by one or the other evacuations, but this is not the case. We have always one disease varied only by the constitution of the patient, the climate and accidental circumstances. Moreover it is propagated when great attention is paid to the immediate removal of all excrementitious fluids. What then can we presume but that in a Typhus state, the capillary vessels secrete a fluid or vapor which produces the disease. There are other causes which produce the disease. Those which produce our autumnal fevers, Acid and unwholesome food, also it prevails as an epidemic from some vitiated state of the atmosphere; it arises also from certain conditions

860 It is a disease of the country - generally prevailing on elevated positions, while the low grounds are associated with bilious fever - I never knew 20 cases of dysentery in the hearts of Philadelphia -

② "Dysentery may readily be distinguished from diarrhoea by the absence of fever in the last, the less degree of griping and tenesmus: the appearance of the stools, & the other symptoms, will further assist us"

"A great degree of tenesmus, severe griping pains, frequent inclination to go to stool & but little voided, much depression of strength, fætor of the evacuations, a tense abdomen, violent pyrexia, cold clammy sweats, coldness of the extremities, apthæ, hiccup, petechiæ, and a weak irregular pulse, are to be regarded as very unfavourable symptoms. Whereas a gentle and universal dysphoresis, moderate pyrexia, the evacuations becoming less frequent and more of a natural consistence, and a gradual diminution of the griping & tenesmus, are favourable appearances?"

④ "Upon opening the bodies of those who die of dysentery, the internal coats of the intestines (but more particularly of the colon & rectum) appears to be affected with inflammation, and its consequences, such as ulceration, gangrene, and contractions. The peritoneum and other coverings of the abdomen, in many instances, have likewise an inflammatory appearance?"

⑤ Sometimes the stomach and small bowels are principally affected. Here the nausea & vomiting are aggravated, with little ^{torment} ~~nausea~~ and Lenes; Sometimes the whole intestinal tube is affected -

Pringle says the liver and spleen both shew marks of disease. And I suspect in warm climates all the abdominal viscera are affected - Pathology. The mucous tissue first affected, we then have mucous discharges - next the fibrous coat - then tormina & truss; Then the serous - here Lancinating pain - tenderness on pressure &c.

Mr. Playfair gives ʒss a ʒj of Specacantha with ʒo or 40 qts of Laudanum. This has the appearance of being useful, I have not used it - ~~at~~ the same time

of the atmosphere, as cold attended with heat and or moisture after long 87
dryness; also from whatever checks perspiration from catarrh or rather ac-
companying catarrh, and I have known it alternate with rheumatism ①
Diagnosis is obvious. ② Acute dysentery most resembles it. Here the
treatment is very similar. - distinguished by the absence of fever in dysentery
less griping - appearances of the stools, &c. &c.

Dysentery is a febrile disease determined to the alv. canal. This was the idea
entertained even by Sydenham, but this fever is of a different type; Intermitt.,
Remitt., or continued; which last is rather inflammatory or Syphus. Gener-
ally the primary seat of it is in the stomach; here is the first disturbance as is
indicated by nausea and vomiting. The action is soon extended to the intes-
tines. Dissections however shew that the disease is chiefly directed to the large in-
testines, (as the colon & rectum,) as here there are marks of inflammation, and other
phenomena of depraved action. ④ Enough has been said to explain my views
of the nature of dysentery, and what would be the proper treatment.

The Indications are obvious; but the disease is much modified. As it usu-
ally presents itself, the indications are to moderate inflammation, and the morbid
irritation and spasm; to procure discharge from the bowels, and to restore healthy
~~action to the surface of the body~~ ^{reaction of the liver & skin} which is usually hot and dry. From the time of
Sydenham it has been customary to exhibit an Emetic in this disease. Enamoured as
I am with this practice in various bowel complaints, still I do not admire it in
dysentery, unless where there are great accumulations of bile or other fluids, creating
nausea, and vomiting; this is very common in miasmatic districts. Called to a
case of dysentery under ordinary circumstances, the Lancet is the first remedy
demanded. By thus early resorting to it we check inflammation, and render the
system susceptible to our remedies: and as the complaints of the bowels are marked
by this deficiency of sensibility the Lancet becomes indispensable. But more over there
is another reason connected with this inflammation, there is a spasmodic constriction

88 Confining the parts to a horizontal posture - If the first dose be rejected repeat it and it will generally be retained.

{ Ulceration about the ilio caecal valve
bloches, patches, streaks, & lymph upon
the peritoneum,

Seeks to cup to the abdomen, warm
the cold to the abdomen,

④ Gamboze has lately been recommended; it may perhaps be of service.

with pain which affords a barrier to the natural evacuations; V. S. here is '89
unrivalled, it relieves the spasm and with its removal the hot and dry skin becom-
es moist and pleasant. ℥xx. is the proper quantity and if this does not have the
desired effect, repeat nearly to the same amount. We are now to resort to pu-
gatives and Caster Oil is usually preferred. that it will often answer cannot
be denied. But it should be freely given to obtain any decided advantage. ℥ij or iij
must be given daily. It is well known that the oil runs rapidly thro' the bowels
and removes very little of the feces or bile. As regards our own dysenteries & especi-
ally as they prevail in hot weather; I suspect that the Mercurial purges are the
best. So we not resort to them when we are anxious for thorough evacuations in
bilious fevers and why are they not still more necessary in dysentery? My prac-
tice is to employ Cabomel either alone or with Rhubarb, and where it lingers
in the bowels I resort to injections. After having once freely evacuated the bow-
els then I employ the oil or what is better the Epsom Salts and if necessary repeat.^(d)

No point in the medical practice has been more discussed, than the question, how
far we are to urge the purging? At present it is generally agreed that purgatives are
necessary till the discharge becomes perfectly natural. This is a sound and practical
precept, every one knows; that while acid matters remain in the intestines the in-
flammation will be kept up; but I believe this to depend on the primary irrita-
tion applied to the bowels. I with these opinions therefore resort much earlier to
the use of opium than any of my medical friends; but my own observations &
experience convince me that I am right, and when this is the case, I totally dis-
regard the weight of evidence and authority which may be against me: this may
be vanity but I cannot help it. Since the time of Sydenham there has been a mar-
ked aversion to this practice; but they have all been influenced by the notions
of the Humoral Pathologists, that some morbid fluids are to be evacuated. But
I believe that this discharge from the bowels is as much the effect of primary
irritation, as that of hemorrhage arises from an irritated urethra; or that the flow

③ My plan is to purge in the day & give an opiate at night -
 Here the sacch: Saturni is useful. I have employed it for several
 years with great utility - v.s. and purging being premised - I have
 found nothing more useful in allaying Formication & Tenebrius -
 I have combined it with opium & Spasac^o with great
 advantage -

④ Before sweating is resorted to - The pulse is to be reduced, & other
 inflamm^y. symptoms. the bowels evacuated, &c. then sweating is
 useful -

⑤ which is known by the vitiated discharges -

of tears from the eyes when irritated by any foreign substance. I however do not employ the opium by itself, but am desirous of promoting the determination to the surface. This is indicated by the condition of the skin. still however it should be remembered that the pulse and febrile action should be reduced; when this is not attended to, the opium does harm. A practitioner has lately proposed to treat dysentery with the Lancet and opium independently of other remedies. I cannot go so far. ² Aken-side the poet and physician has strenuously maintained the superiority of the sweating plan. This practice has been altered and amended by many writers, Kitcher is one of these. He advanced the theory that dysentery was simply a ^{rhumatic} catarrhal affection of the large intestines. Founded on this he had recourse to sweating remedies. This is a vain and disastrous attempt at generalization. The theory is incorrect, and the practice will succeed in a few cases only, these are rare: and the practitioner who commences his labours with such ideas, will be traced in his paths by the mortality of his inflicts.

I am now to point out the best means of exciting Sweating, when this is indicated in dysentery. at this juncture I resort to the following combination

R^x. Calomel — grs. xvj.

pulv. opii — grs. iv.

Specac. — grs. viij. M. & divide into pulv. viij. one

every two or three hours as necessary. This is certainly not the most active diaphoretic we possess, but it produces still more important, it composes intestinal irritation, relaxes the surface, gently evacuates the bowels, and makes new impressions, which are altogether unintelligible. All must acknowledge the utility of the calomel; which acts so well by altering the bilious and other secretions, as by its evacuant powers. But merely as a diaphoretic, when the only thing ^{we wish} is to induce sweating; the Doers powder is preferable. this will never disappoint us; but is never to be prescribed in preference to the preceding combination when any evacuating power is required. No article in the Materia Medica has been

92

more exalted than Specac: in dysentery, either alone or in combination. 93
Some have regarded it as particularly to that form of complaint, where the
bloody discharge is profuse amounting almost to Hemorrhage. But it is useful
in every variety of dysentery. I have found it well suited to those cases in which
the pain is severe, and the desire for stool frequent and ineffectual. But I am
far from being the only one who speaks in its favour. It has been employed by the
most celebrated practitioners, and all unite in bestowing on it, the highest comm-
endations. As to its mode of action we know very little; we cannot agree with Cul-
len and Baker who attributes everything to its purgative property. As this effect
is not universal, while it almost always is beneficial. Neither to its diaphoretic
power, as we have other diaphoretics of much greater power, which are altogether
useless. But it acts probably by relaxing spasm, and exciting diaphoresis. Much
has been said of the Antimonial pills. These I have tried and after a fair and
repeated trial I do not ^{think} that they are to be compared to the Specac:. This is not the
universal sentiment. Sir George Baker after a very extensive experience declares
in favour of the Santurized Antimony. So also does Sir John Pringle and oth-
ers of ^{my} note, but not so strongly as the former gentleman. he used the Scrated glass
of Antimony. Cases may perhaps occur in which they are useful and even preferable.
But it will be very difficult to discriminate the one from the other, and upon the whole
I prefer the use of the Specac:, which is certainly very valuable in this disease.

As auxiliary to the above remedies, great advantage will be gained by warmth applied
to the skin. all must be acquainted with the advantages of Somentations to the ab-
domen, in relieving spasm and promoting diaphoresis. The means of applying these
I have already detailed and need not now recapitulate. The Warm bath, as
in all bowel affections, is eminently useful, and acts upon the same principles, as the
topical applications. But on account of the difficulty in procuring a bath, and the
inconveniencies necessarily attendant on its employment; it is not a remedy a-
dapted to general practice, and may therefore be dispensed with in many instan-
ces.

It is one of our resources in cases of difficulty and danger. In children however 95 the objections do not apply and we may resort to it more frequently and with greater benefit than in adults. The Vapour Bath much more effectual.

Lately a remedy has been proposed, as likely to supersede the warm bath & fomentation. This is the flannel roller to the abdomen. (I will previously read to you the authors views on this subject. His name is Decees and has been at the head of the Medical Staff of the English army in Egypt and in the West-Indies. He observes, that if during the operation of any purgative, the bowels are not kept warm, the medicine will be of but very little benefit. Warmth is by no means a secondary object, but is productive of the most decided advantage. He directs that 4 or 5 folds of flannel are to be laid on the abdomen, and then that a flannel bandage is to be applied from the groin to near the arm-pits, and back again. This is to be worn for a considerable time; but it produces a speedy amelioration of the symptoms, and is to be used in every stage. It embraces all the virtues of the warm bath without its inconveniences. This last is often too hot, inducing a profuse perspiration which is very hurtful, or it is too cold, rendering it necessary to add continually hot water; it also cannot be persisted in for any length of time. But by means of the flannel bandage, the abdomen is kept constantly and steadily of a certain temperature, subject to no variation or change by which the patient can take cold, and it can be continued as long as may be necessary. It removes the local torpor of the abdomen which gives the sensation as if the patient had no bowels, it restores the proper feelings of this part. 2nd When this torpor is interrupted by gnawings and gripings, the flannel is equally effectual, preventing the accession of cold, which is the frequent cause of the symptoms. 3rd It removes languor and dejection. 4th By supporting the abdominal muscles, and by pressing the bowels against the diaphragm, it prevents dyspnoea, and enables respiration to be performed with ease. It should not be too tight, as then a difficulty in respiration of another kind would be induced. It strengthens the intestines and accelerates the curative process. These operations

are speedy, and if in two or three days they are not evident, we may conclude 97
that the disease requires other remedies, or depends on causes which the usual
means will not remove. So much for this author. I have to observe that I have
no experience of it in the acute stages of dysentary. But in all chronic cases of
this disease, in Cholera Infantum, in Diarrhea, and other chronic complaints
of the bowels, I have long used this remedy before I ever knew of this publication.
That it does good in these cases I have no doubt, it is beneficial as well by the
support which it gives, as by the equability of temperature, which is constantly
preserved. For these reasons it is peculiarly adapted to the chronic diseases of the
bowels; whether this is likewise the case, as regards the acute stages: but I cer-
tainly would not trust to it, to the exclusion of other remedies.

As yet I have said nothing of the use of Blisters. These are very important,
and cannot be dispensed with. They are applied to the abdomen or extremities.

But in all local diseases they are best when they are applied near the part af-
fected. It is customary however to apply them to the extremities, on account
of the pain and inconvenience attending them when the patient goes to stool
with his abdomen raw and inflamed. But this pain has been greatly ex-
aggerated, and does not counterbalance the good effects attending its appli-
cation to the abdomen. I generally premise evacuations of the bowels, one or
two bleedings, and if these are not attended with much advantage, I cover
the abdomen with a blister; ^{10 or 12 inches square.} and have had very often occasion to be satisfied
with its effects. In dysentary it is necessary for the practitioner to keep a steady
eye to the employment of Blisters and occasionally to exert his authority, as there
is hardly any remedy against which there is so much prejudice, as the appli-
cation of a blister to the abdomen. This then forms the general treatment in dys-
entary. But there are some local complaints requiring a particular treatment,
as Tormenta & Tenesmus. (By Tormenta, I mean griping; By Tenesmus, the effect of strain-
ing at stool.) These often appear throughout the disease, but generally in the last

Rp. Castor oil - $\mathfrak{z}\text{i}$
 Loaf sugar - $\mathfrak{z}\text{i}$
 White of an egg.
 Laud. — guttes 40 — Minerals & then add —
 Lime water - - $\mathfrak{z}\text{ij}$

① $\mathfrak{z}\text{ij}$ of the bruised root boiled in a quart of water, down
 to a pint - see Black - I have no experience -

Stage. Here opium is much depended upon. When there is much Tormina and accumulations in the bowels, the common oil mixture is well adapted.

R^x. ob. Ricini. — 3j.

C. Arab: — — — 3ij

Sacch: alb. — — — 3j.

Laud: — — — 3j ^{quintus}

Aq. Menth: — 3ij m. occasionally Laud: may be

added. Dose 3j. every 1, 2 or 3 hours. So also the cretaceous julip which I have already detailed on a former occasion. Speacuanha & Opium in the proportion of gr. j of the former, to gr. ss of the latter. Calced Magnesia in small doses; Common Salt dissolved in Vinegar, also is used with advantage; Sacch: Saturni, after evacuations I have found nothing more useful to relieve Tormina and Tenesmus, than Sugar of Lead, also in Cholera Infantum; about every 24 hours we omit it and interpose a purgative, then proceed. Tenesmus is relieved by Anodyne injections, or where these cannot be employed an opium pill of gr. ij or iv. may be placed in the rectum. It is usually retained and we have all the effects from it, as obtained by injection. The best injection is that of melted butter ^{or Lard} $\frac{1}{2}$ pint at a time; the butter should be perfectly fresh, having no salt mixed with it. This is preferable to the olive oil. As a general rule it will be found that the animal oils, are much milder than the vegetable, as the former are often retained when the latter are rejected. Lastly, Speac: is recommended in the form of a clyster, ²Emolient enemata, as of flax-seeds, &c.

Another remedy in this complaint is Mercury. You will find this much recommended by the modern writers of the East and West-Indies, who consider it as a remedy to be relied upon. But there are the same objections to salivation in dysentery, as in yellow fever. The fact is that in violent cases, it is exceedingly difficult to induce salivation, and when the action of the system is sufficiently reduced to admit of it, the patient is out of danger. Cleghorn used it to a salivation, and when this took place a cure was effected. Mercury is comm-
only

100 Spts of Turpentine lately much recommended in this City given alone
or in combination with Vol: alk and opium -
A salivation seldom required in this country - yet when induced I think
is effectual -

② Attributed to contagion - I do not think that any filth of the patient causes
the disease - I do not believe dysentery is ever dependent on contagion.

Spts. of Turpentine lately much recommended in this City given alone
or in combination with the Vol: alk. and opium -

③ - Steam bath, vapor bath, &c.

required in this disease, when the Liver is involved. In chronic cases, 101
it should be resorted to, and may be given internally and by friction.

I must say a few words on the proper Diet - As we have an active inflammation of the bowels, it is manifest those articles are to be chosen, which are the least irritating and offensive, and that the digestive organs may be employed as little as possible, they should be fluid. The Wiluent and Emulcent articles are to be much employed, as Barley water, Rice water, mucilage of G. Arab: or flaxseed, Infus: of Slippery Elm of our own country, Toast & water, arrow-root, Sago, Sapioca, &c. &c. It is fortunate that as these articles are the best for nourishment, they are also said to act as remedies. The old notion of their shielding the intestines, must be given up: when we say that they are easy of digestion, and that they prove medicinal, we state all we know with any degree of certainty.

We have now considered the disease in its inflammatory stage, but in crowded places, as camps, jails, hospitals, ^{ships} &c. &c. It acquires a typhus character, in which case it is obvious a different practice is demanded. The symptoms are very near the ^{same} as in the inflammatory form; there is in the typhoid always more ~~of~~ debility, depression, a feeble ^{skin at first hot, soon cold,} pulse ^{more loaded and dark tongue}.

In the treatment, it is wright to pursue the same course, as in the low states of fever, but paying particular regard to the intestines. As in Typhus, ^{fever} we should commence with an Emetic and moderate evacuations, ^{then the bowels} and then we should resort to cordial & stimulating Diaphoretics, as Dovers powder, Vol: Alk:, wine whey, ^{Rest to the abdomen & extremities.} &c. This is the treatment in which I have the most confidence. But where there is originally a typhus action, or where this occurs in the course of the disease, it is the safest to salivate. I have never seen the system completely under the influence of Mercury without mitigating the symptoms, and producing finally a recovery. This I told you would not answer in the inflammatory dysentary: But the objections there mentioned do not

102 In this country a salivation is seldom demanded. Yet
when induced I think it beneficial - Support the part by
the cordial Stimulants - Spts of Turpentine when there is flow-
dy & copious discharges - Peruv: bark in decoction, &c.

⑥ Let the same as that I have before recommended.

False small, hard and accelerated

appear to the lower form of the complaint. The mercury should be given 103
ly administered, both internally and by friction. and the patient in the in-
terim is to be maintained by the diffusible stimulants. The fever attending this
complaint, assumes in some instances the Intermitt: or Remitt: form. Clegg
notices this in the diseases of Minorea; I have seen it in the Alms-house and
much difficulty occurred in the treatment. Morton who was the contem-
porary and rival of Sydenham first noticed this form of fever & advised while
the usual remedies were given for the disorder of the bowels, the Bark should
be administered during the apexia. Cleggorn pursued this practice and oth-
er recent practitioners. Notwithstanding these authorities, I am strongly in-
clined to believe the practice so far from being advantageous, is not even fea-
sible. In no case did I ever see an opening for the bark. I am persuaded
that Bark is mischievous in all ^{cases of irritability and inflammation} ~~complaints of the~~ bowels; it is very irritating to
them, even in a healthy state; it often induces nausea, & purgings. Of late
much has been said of Charcoal. The Mineral acids have been used
for the same purpose as the bark, but I have no experience with them.

My plan is totally to disregard the fever and remove the complaint by the
usual remedies; after this if the fever should remain I would attack it. I
have yet been speaking of the acute forms of dysentery only; But the chronic sta-
te is that which proves very difficult and which demands much attention.

Chronic Dysentery. There is great tenderness of the abdomen ^{on pressure} the bowels
are easily excited, the evacuations are small, mostly mucous, ^{with blood or otherwise} ~~with blood~~ ^{foculent & offensive}; there is some griping and pain, little appetite, and the food is badly digested, the
skin is hot and dry, complexion sallow, the eyes sunk ^{the tongue burned} and gives anxious ex-
pression to the countenance, which is thin and haggard. These shew that the
blood is collected in the large vessels and a proportionate evacuation
of the small vessels. The Indication is to restore action to the surface, and
I have succeeded in several cases where tonics have failed. Small and

Small & repeated bleedings - Gentle purg - Green powder at night
 assisted by such means as keep up perspiration -
 Diet farinaceous -

Chronic Dysentery

repeated bleedings; I employ the doovers powder ^{at night} which, with a proper 105
regimen keeps up a gentle perspiration. It is in this case that the flannel
roller is so advantageous. there are cases however which are protracted
by visceral disease, especially by that of the Liver, when this happens, or
when we have reason to suspect it, Calomel ^{or the blue pill} is to be resorted to, in minute
doses united to the other remedies; nitric acid instead of mucous, also, nitro,
muratic acid bath. also given internally -

Diarrhæa.

This is closely allied to the mild form of dysentary, and may in some cases be with
difficulty distinguished. But it is never contagious, there is no inflammation, or
fever. The discharges are more natural, and there is less tormina and tenesmus. This is
all very true as a general distinction; but take the worst case of Diarrhæa and the mildest
of Dysentary, and it will be very difficult to point out a distinction.

Diarrhæa consist in a morbid increase, of the peristaltic motion, but this arises
from such various causes and is so morbid, that there have been numerous
divisions of it. For our purposes it will answer to notice it under the two heads of
Idiopathic and Symptomatic Diarrhæa.

Idiopathic arises from causes acting directly on the canal, or from those which act
through the general system. Of the former, the most common are ingesta, which act either
by their quantity or quality. Of the latter are morbid discharges from the liver, or
pancreas, vehement passion, checked perspiration, great fatigue, &c.

Symptomatic may be caused by irritation produced by a diseased liver, or

③ Sometimes the rigida dysentery - the system becomes exhausted - tongue red - aphtha about the mouth - abdomen tumid - oedematous swellings - haggard countenance -

④ "Dissections of diarrhoea, which have terminated fatally, have shown that where it prevailed as a primary disease, ulceration of some portion of the intestines is the morbid change most usually met with; in which case, the inner membrane is often abraded for a considerable extent, and its muscular coat laid bare, ^{like a pin of worm eaten wood} and its muscular coat laid bare. They have likewise shown that the follicular glands are the most frequent seat of such ulcerations, and that they now and then become cancerous, and assume the same appearance as scirrhous and cancer in other parts. Honey comb excrescence along the colon - granulated - tuberculated.

Prognosis - mostly curable when arising from disorder of the bowels alone - when dependent on other diseases more dangerous

Pathology - a vitiated state of dysentery - differs - In acute diarrhoea more irritation than inflammation - arising or progressing

⑤ The symptoms very analogous to Chronic dysentery -

Idiopathic may be Acute, or Chronic. Symptoms.

nausea & vomiting - surface cold ^{pallid} - pulse feeble - bowels flatulent - sometimes tenesmus - fluids different - watery - mucous, pale or ashy coloured - bilious appearance.
① The acute is curable, but the chronic is mostly fatal. In the management, two ~~two~~ indications are apparent. 1st To remove the cause of the complaint. 2nd To stop the discharge, by allaying irritation, or strengthening the bowels by tonics. The first is to be answered by administering an Emetic in the first instance, after which, Rhubarb, or Magnesia ^{or Castor oil} is to be given. If there is any fever V.S. will be very proper. After these diaphoretic of which, Opium is the basis should be employed. The same treatment is to be employed whatever be the cause, except when it is produced by checked perspiration; here the evacnants are not always sufficient. In the latter case something must be done to alter the condition of the surface of the body, and here the warm bath is very useful; Specac. Spts. Mindereri ^{with Opium}; these cases require but simple treatment. It sometimes approaches to inflammation, & requires V.S. &c -

The Chronic form of Diarrhoea is the most difficult, and is attended with a depraved condition of the bowels, or disease of the chylipoietic viscera. The first enquiry should be made into the state of the system. If there be a tense, or corded pulse ^{from the abdomen}, you must bleed largely, experience has sufficiently attested the propriety of this practice, and also the phenomena on dissection of those who die of it, confirm this. One bleeding is seldom sufficient. Chronic inflammation, ^{however extensive & long standing} has a stronger possession of the part than recent, and is much more difficult to dislodge; you must not be discouraged if one bleeding is not of any apparent service; but we must ~~we must~~ go on, every 2 or 3 days we should bleed ^{which the rules for intermittent fevers}. I have taken blood from 10 to 15 times, and at each operation from 3iv. to 3vj or 8 I

108 Broussais. properly says it has its origin in inflammation of and particularly of the mucous follicles.

① Soporific bleeding,

② Cal and Spicae ad gr x.

Opium ————— gr. v. make xx pills.

Simultaneous pedicle, rubbing with dry
Salt,

Sopores Rhen Op & Op

③ alum whey,

④ alum & sulphate of iron better,

Hopps mixture,

R

miss camp 3000
michoud and pt 2
Sand 1000

⑤ none no divided } one a table
much advantage } sponges according
has is the } to the emergency
cotton plugs }

found this very effectual, and am convinced that without it, I should not 109
have succeeded. A very Low diet has been recommended by some. — Emetics
of Specac: are to be exhibited 2 or 3 times a week: but to renovate the bowels,
by establishing a new series of actions, after the impressions made by the above
remedies, employ the following P. P. Rhubarb — grs. xxx.

Specac: — grs. x.

Opium — grs. iv. m. & divide into pulv. x.

one to be taken every 2 or 3 hours, during the day time and at night grs. x.
of the Dover's powder, with warm drinks, as toine whey. Much may be ex-
pected from the warm bath, especially when some stimulating article is ad-
ded to it, as salt, Pepper, mustard, a strong brine bath is very useful: after
the patient is to be well rubbed with a flesh brush. These proving unavailing, I
then resort to Alum. This is a very valuable article, and well suited to this
complaint, by acting as a Tonic, and at the same time moderately Laxative,
also preventing the evacuation. My method of using it, is to take grs. iv. of Alum,
and grs. p. of opium: this is to be given 3 or 4 times a day. When the skin is hot
and dry, or there is uneasiness of the bowels, I add a little Specac:. From a very
long experience in this article in chronic diarrhoea, I can speak with
considerable confidence of its virtues. Dr. Mosely has recommended it in
his vitriolic solution prepared of White vitriol ℥ij. Alum ℥j. Cochineal grs. iij.
to be infused in a pint of water and strained. The author states that the alum,
or the vitriol may be increased as we wish to promote or restrain the discharges
from the bowels. The dose is ℥j. to ℥ss. as may be necessary, sometimes every
8 hours, but in most cases every morning only. I cannot say a great deal of this
medicine from my own experience. I have used it in some cases with service;
but a great objection to it is the nausea and distressing effects which it produ-
ces, and which will prevent its being continued for the time that is necessary.
It is not much used in this city. Dr. Barton thought it at one time superior

③ To the abdomen where there is much uneasiness in the bowels.

The vegetable acids, vinegar or Lemon
juice, 3ij to ʒij. Spring Water
or any other pure mineral Water in a
day often put in and the
obscure

Mercury with chalks,
not must be exposed for
any treatment in the ulcerated
state,

to all other articles: But it is certainly too disagreeable for general practice. It

Blisters are recommended by all practitioners. They are applied to the extremities and Dr. Rush thought that it was useful to alternate between the wrists and ankles. They act by revulsion, drawing the disease to the surface, or by breaking the association of morbid actions which have been established by habit. To obtain their full efficacy they should be continued for several weeks in succession. ^{with opium & sometimes with Spume} Mercury given in minute doses, as an alterative, it institutes a new train of actions - particularly useful to salivate where the liver is affected.

the Nitro-muriatic acid bath is also useful, in the moderate ^{in severe infl. of bowels} form. Balsam Copaiva - very useful when the discharges are glutty & purulent. Spts. Turpentine - gts. 30 or 40. 3 or 4 times a day.

Common Rosin. is the best. with a little loaf sugar - 10 or 12 grs.

Cubeb also effectual in the same dose & manner. Strychnine, in ulceration conditions of the bowels, ^{but} balsam ^{is} the best & ^{of no use.} Strychnine, of no use.

I am now to mention that form of Diarrhea, which depends on a relaxation and debility of the bowels. This often succeeds the inflammatory state: but also occurs in weak and elderly persons, a symptomatic of consumption, without any previous inflammation.

The Indication in these cases is very simple. It consists in restoring the tone and vigor of the intestines which is to be done by the exhibition of the various tonic & astringent remedies. These are very numerous, and I shall not enter into the details of them, but merely point out the most efficacious. The Galls are very excellent, whether alone or in combination, as in the following formula.

R. Infus. of Galls. Ziv. cut. pptt. - Zij. Laud: ʒj. misc. the dose ʒss. every 2, 3 or 4 hours. The next is the Gum Kino which is given in powder

R_g. Galls — 3i-
 Cortex — 3j-

then add Brandy-

& loaf sugar — forming a kind of syrup — very useful —
 use a tea spoonfull every 3 hours

③ or Cinnamon —

⑤ The Rubus Procerus the best —

this should be kept up by ulcers in the
 carbon formula or

⑥ The Nitro-muriatic acid has lately preceded it — both internally & in bath —
 Common vinegar 3 or 4 times a day is useful — Mercury —

watery solution or Tinct.: I prefer the following.

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R^x. Tinct: Kino

℥ss: chalk. aa — ℥iv.

Sand: — — — ℥j.

Aq. — — — ℥iv. m. dose the same as

the former — As I have already observed the Logwood is much used in this city in Cholera Infantum and diarrhoea for its astringency. A strong decoction is made of which ℥ss. is the dose. The Pomegranate Bark or Flowers in decoction with some aromatic, also clove Tea where the patient was sinking — also, Comp^d. Tr. of Rhubarb. — with a few drops of Laud: — small & repeated

Our own Country furnishes us with several valuable articles for this disease. The first to be noticed is the Geranium maculatum — the root of this boiled in milk, is in very common use as an astringent. I have not had much experience with it; but I have received such high recommendation of it, that I don't hesitate to recommend it to you. also the Arcum triphyllum or Indian Tanip is given in the same way. But what is most employed, & I find to be the most advantageous is a decoction of the Rubus Procumbens or Rubus villosus, root. This I have already noticed as useful in the Cholera Infantum ⑤ The Sacch: Saturni is a very popular remedy in this city in almost every form of diarrhoea. I have given it when there was Tormina & tenesmus, q. s. with q. s. opium.

I have already noticed Alum.

The Mineral acids, I have used with great utility, especially in diarrhoea of long standing. It is a little extraordinary that while the Vegetable acids augment the complaint, the mineral should check it. I prefer the nitric acid — the sulphuric is often employed. I begin with gtt. x or xv. of the nitric and gradually increase it to xli or li gtt. 3 or 4 times a day. But our medicines will avail very little except they are assisted by a proper diet, appropriate

- ③ Tie up 3 or 4 hands full of flowers in tin in & boil for 3 or 4 hours - it becomes solid, & is excellent - Make milk with it
- ④ Meats should be stale - cracked but - By the way a
scurvy, roused, pains generally overcome
- ⑤ Exercise - Traveling - a sea voyage after every thing else has failed -
- Persons with lax bowels have seldom strong thoughts -

⑥ A preternatural retention of the feces - hard, & dry -

⑦ One case where a man lived 28 years - The skin throwing off fluid parts.

clothing, and by avoiding the exciting causes. It may arise from dyspepsia, or from some depraved action of the digestive powers. Indeed I hardly knew a case of ~~depraved~~ habitual diarrhoea, but what is more or less connected with dyspepsia; in which cases the same treatment is to be followed, as directed under that head. We must resort to the remedies which act on the stomach. The Steel & vegetable bitters, are here very important. Diet, as sago, Tapioca, Rice, Arrow-root, &c. Sometimes a little ham and salt fish soups are improper; bread and water is a good diet. a little Brandy ^{port} wine and water. In this way we will often succeed in the most obstinate cases.

As to what I have said on this subject of clothing I would only add at present that the flannel roller is here decidedly of great advantage. Every thing however failing, we should never abandon our patient without trying MERCURY in minute doses $\frac{1}{10}$ or $\frac{1}{2}$ gr. at a dose, especially if we suspect any organic disease: but not only here is it useful, but in many other cases, in which, there is no visceral disease. If it should not succeed we advise a long journey or voyage: exercise is very beneficial, and when the patient is strong enough riding on horse back is the best. Before finally dismissing the bowel complaints, I must notice an opposite state of the intestines. viz.

Constipation. This is a very relative term, as some persons have an evacuation daily, while others go weeks & months and even years without one opening, or receiving any inconvenience. Rush related a case in his lectures of a Captain who used to perform a voyage to London and back without having an opening, and experienced no inconvenience from such retention of the alvine evacuations. Many cases of this kind are recorded by Haller. But when the evacuation in any individual is greatly delayed beyond the usual period, it is generally found that there is headache, ^{debile symptoms, & flatulency} nausea, flatulence, colic, vomiting, fetid breath, eructations, and pain of the abdomen. The remote consequences are piles, varicose veins, &c. and various constitutional

② The mind becomes listless

Rhubarb properly ~~Objected~~ to it as it leaves a costive tendency -
This is done away when united with the castile soap.

③ This pills is the purgative period of fashionable life in London.

④ R^h Rhub: 3i.
Aloes- 3ss.
Specac^e 9ss. xx

oil of Caraway - guttes x. ~~fto~~ - pills: xxx.

By adding Tart: Emet: or Specac^e to any of the purgatives -
vastly increases their power, & particularly when the bowels are
deficient of susceptibility -

One of the best laxatives is the extract of Juglans Cinerea

Inopisate the bile of the ox over a sand bath & then give
4 or 5 grs.

⑤ Constipation not being overcome by these we resort to Mercury
5gr of the blue pills at night purged off in the morning with some
other article - Let down necessity to urge the Mercury to a by alumina -

derangements and finally death. It causes Hydrocephalus, Tetanus, &c. & all the claps of neurosis nearly - Nysteria - Epilepsy - ②

The CAUSES may be comprehended under two heads.

1st A deficiency of irritability in the intestines -

2nd A deficiency of bile in the intestines. or vitiation of its properties -

Both of these may be relieved by purgatives. In the first after the use of stimulant purgatives, Laxatives only should be employed. 1st Large doses of Calomel; then much is said of Rhubarb, better to unite Castile soap.

R^g. Rhei — ʒij.

Indespes — Syrup — ʒj.

oil caraway ^{quinta} ʒx. ft 40 pills. ③

The Lac Sulphuris and magnesia in equal quantities form one of the best Laxatives in this case - In the second division the strong mercurial purges are to be employed, as they appear to have a peculiar effect upon the liver - Rhubarb combined with aloes we sometimes use in the second division - If the purges should fail we may give the Mercury with a view to salivation. In these cases where little or no bile is discharged into the duodenum; I have found the Bile of animals very useful. I give it by inspissating it and making it up into pills containing grs. x. to xv. - 4 or 5 grs of the bile of an ox will purge a man - This I learnt from Richter and have found it very advantageous. Charcoal, where the tongue is furred, the breath fetid, &c. will remove this offensive odour, and it will purge ^{with some activity} ④ Constipation sometimes proceeds from stricture of the intestines, also from tumours, especially in the rectum ^{Sometimes in the colon.} For the treatment of these cases, I refer you to the professor of Surgery - ascertain a stricture by examⁿ - by the appearance of the faeces -

Sometimes dependent on Tumor of the rectum - peculiarly incident to females - may be mistaken for an affection of the uterus - bearing down pains, shooting through the uterus - Sometimes the womb

118 Enlarges - and the mamma swells, similar to gestation -
remove them by a scoop - and give the aloetic ppts:
because they have a specific effect upon the rectum -

Aloes Zi

Rhei - Zi.

Colomela gr. xv.

Comp^d Extract. of Coloc^{yn} gr. xv.

Castile soap to make a mass - ft. pillul: 40 - one every night
Leit - forbid the farinaceous articles.

Baked apples - stewed peaches - Corn meal - stew figs.

A species dependent on some affection of the small intestines - a sense of weight at the Epigastrium, similar to dyspepsia & often mistaken for it -

Rp. Lenna Zij

1000 Gintia - Zij.

Boiling water - 1 pint - Lenna $\frac{1}{2}$ a 1 wine glass full whenever the oppression is felt - excellent to evacuate the small intestines -

Vermes or Worms.

I have placed among the intestinal affections, worms, whether this is correct I do not know, but I know not any place in which I could better notice them. The worms which infest the human intestines are divided into Round and Flat. The first includes the Lumbricoides or Lumbricus; the Ascarides, and the Trichuris, or ~~Trichuris~~. The 2nd or Flat genus includes two species, the Tania, & Cucurbitinea. and Lata - Armed and unarmed.

The Lumbricus resembles the common Earth worm, but upon inspection a material difference will be seen; It is found in the duodenum, and all the small intestines, seldom in the stomach or large intestines, when they are in either of these situations, it is probable they are endeavouring to escape from the body being disturbed by some irritable substance, or by

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disease; the greatest length of this species, is from 5 to 10 Inches, and they often exist in great numbers: I have known 20 or 30 evacuated in a few days. 200 has been known to come away in a week.

The Ascarides are found chiefly in the rectum; in a few instances in the stomach: they are very diminutive and in large quantities, and look like pieces of thread; hence thread-worm, mau-worm from being sometimes found in the ^{length 1/2 inch.} stomach.

The Trichuris is about two inches in length, and has a long tail. It is said also to have a proboscis: they are of very rare occurrence: I have however seen them, they are supposed to be found principally in the ileum.

Tenia is the only species of the flat worm of which we know any thing, this is of immense length, varying from 10 to 25 feet. They are curled up like a piece of tape, to which, they bear a strong resemblance, and are composed of a number of links and joints; these are sometimes separated but do not lose their life, but increase and become distinct worms. Others consider them in a different light, and maintain that each of these links is a distinct worm. As to the origin of these worms in the alimentary canal, little is known, but the speculations on the subject have been very numerous; but I cannot enter into these, as I would be led into a great deal of useless discussion, and come at last to no certain conclusion, as the point is still involved in great obscurity. It should be noticed however that they are peculiar to the human bowels. The same kind of worms not being found as far as I know in any other situation. A late writer, Pallas, has observed that the Tenia is to be found in the waters of the Siberia: But this wants much confirmation.

As to the circumstance which favours their formation we know more. When there is debility of the system, especially of the bowels, in children, we have good reason to suspect that worms either exist, or are forming in the canal. Children from the 1st to the 5th year are more liable to them, than at any other period. Why this should be so is very doubtful; some have supposed it to be owing to a large quantity of mucus in the bowels, which affords a nidus or net for the support and nourishment of them: a pernicious

122 Some think they are taken into the stomach along with our food & drink.

I do not believe in the Equivocal generation of them -

By equivocal Generation we mean the fatuitous combination of Circum-
stances -

Said to be found in some Springs - rivers, &c -

These worms are not found any where else, but in the human body.

① Most of these I have myself seen induced from worms.

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diet favours their production, hence they are found most frequently among the poorer class of society. The question whether they are noxious, or perfectly harmless has been much disputed. Some have maintained that they were the cause of all the diseases of children; and others that they are not only ~~salutary~~ ^{salutary} but that they act as scavengers removing all acid indigestible matters. I think that there is nothing more incorrect and dangerous than this opinion. This must be acknowledged by all who are much conversant in the diseases of children. I have seen fever and a variety of diseases caused, there originate, kept up, and aggravated by them. Indeed there is scarcely any complaint, the symptoms of which ^{they} do not produce, as Chorea, Epilepsy, Dysentary, Cough, Pleurisy, Tetanus, Hydrocephalus, also, Cyanotic Trachealis, Phrenitis, swelling of the joints, palpitations of the heart, &c.

A late writer has related a case of pleurisy produced by these animals. This I can readily believe, as I have seen them produce the most distressing cough; I have seen a case of dysentary which for a week or more raged with great violence; the escape of a worm indicated the true nature of the complaint. The exhibition of an anthelmintic, immediately brought away several worms and the patient soon recovered. So also Cyanotic Trachealis; in one case I was up all night with my patient, and tried all the usual remedies with no effect: towards morning one small worm was thrown up and the symptoms immediately ceased.

But the disease which is most frequently excited is the Febris verminosa as it is termed. This is a slow ^{remittent} fever of the Remittent form. During the paroxysm the patient is affected with drowsiness and listlessness; during the remission there is morbid vigilance. There is also, pain in the bowels and sickness; the head is much affected, there is some pain, considerable stupor, the eyes are wild, the pupils dilated, the ala of the nose more contracted, the countenance flushed and the forehead has a bright, glazed appearance.

There are two symptoms which are peculiar, ^{and distinctive} a strange alteration of the voice, and sometimes a loss of speech. Dr Butler has denied that this was caused by worms: but from our de accumulations in the ab. canal. He says, that it is caused by active purging.

Anthelmintics of several ^{Kind} 1st Poisonous - 2nd Evacuants - 3rd mechanical
 4th Those which change the aspect and condition of the alv. Canal & pre-
 vents their generation.

① The Tansy, Rue, wormwood, Spts. of Turpentine, the Garlic, wormseed, Cam-
 phor, Spts. of Iron, and Common salt.

In a majority of cases this is correct, but there are many exceptions. Considering 125 worms as the cause of many serious diseases. I will consider the symptoms and cure of each species, & first of the

Lumbricoides. These are to be suspected where there is considerable emaciation, weakness of the bowels, and slimy or mucous discharges. They however occur sometimes in robust and apparently healthy children; cases of this ^{kind} are rare. They are indicated by pains in the belly, ^{attenuation of the body, great thirst} diarrhoea, voracious appetite, in most cases furred tongue, sometimes feeble and depraved, the patient eating chalk, dirt and other articles, by a ^{stale} breath in the morning, by a pale countenance, by swelling of the upper lip, ^{swelling of the mouth} enlargement of the nostrils, tumid belly, the patient awakens up in terror, has startings in sleep, with grinding of the teeth, ^{very contractile} during the day he picks his nose, head ache, has ^{any} cough, ^{fever} and other spasmodic affections, pulse small and ^{uneven} and eaded. Take these together and they will leave the disease no longer doubtful, although from one or two we could not determine the existence of worms.

The ambiguity of all these symptoms unless voiding them is well known.

Having in my last lecture noticed the symptoms which indicate the presence of the Lumbricoides in the intestinal canal, I now proceed to the cure. And of the remedies which are employed the Calomel is one of the most efficacious; but it must be given in the largest possible doses. To a child 2 years of age grs viij or viij. should be given at night and if it does not freely open the bowels, it is to be worked off by a little castor oil or senna in the morning. If it should not bring away the worms it should be repeated; and always to be followed up by the oil as before. Not only the calomel is thus employed, but all the more drastic purgatives, and at one time this was almost the exclusive treatment. But it is extremely problematical, whether they have any other effect than as purgatives. The Salap, the Rheubarb, the Gamboge, the Scammony, &c. have all been used. Of the proper vermifuge medicines, the Spigelia marilandica is the most used, and probably ^{one} of the best. It is given in powder or infusion. The dose of the powder

is from gr. v. to gr. x. morning and night to a child of 10 years of age. To an adult, 127
the dose is ℥ij. or ℥j. or what is better give it in combination with Cal: or Salap. For a
child grs viij. of the Spigelia and grs. viij. of Calomel will dislodge the worms in 99
cases out of 100. The infusion is prepared by taking ℥j. of the bruised root to spirit of
water. ℥ss. is to be given 3, 4 or 5 times a day. In the use of the Spigelia we should watch
its effects as sometimes it produces very distressing nervous affections, as vertigo, head
ache, depraved vision, tremors, delirium, &c. These effects have been attributed to
the plant sometimes found with it; but from some experiments of my own, I am con-
fident this is not the case. The Spigelia is a narcotic article, it is a powerful medi-
cine and in an over dose produces these unpleasant consequences. It is probably that
by this power it proves destructive to the worms. The best mode of exhibiting it is in pow-
der, with the calomel or Salap; as when united with a purgative, I have never known
it to produce these distressing symptoms. This is also true when given in infusion with
penna. The Spigelia will completely destroy the fever tho' it does not prove vermicifuge.
this is also said to be the case when exhibited with Polygala senega. But of this
I have no experience. celebrated vermicifuge powder which has been sold as
a nostrum very extensively has been found to consist of equal parts of the Spigelia and
Lenna, with a small portion of the leaves of Sabin. It is given in infusion and is I be-
lieve the best anthelmintic we possess.

As a very excellent remedy the Helleborus Fœtidus has been very much cel-
ebrated. The dry and pulverized leaves are given in doses of gr. v. to gr. x. to an ad-
ult for several nights in succession. In all the different species of worms it has
been much employed. I have had but little experience with it myself, but the phy-
sicians of our own country and those of Europe have highly recommended it.
Dr. Lewis's nostrum consisted of the Helleborus Fœtidus and a small portion of
Ethiops mineral; in employing it we should be cautious as it is no doubt a very
poisonous article. The Nelia Azedarach, or Pride of India, has been much
extolled by many as a powerful article. Its activity resides chiefly in the bark.

of the root. It is exhibited in two forms = In the Southern States a patentes 129
decoction is preferred; a small Tea-spoonful being the dose for an adult.

The powder is also used but not so frequently; I have used it but in a few instances, and have every reason to be pleased with it. In the U. States it has become more popular than the *Spigelia marilandica*, and by many practitioners is considered as superior to all others. I have never tried it in *Tenia* or *Ascarides*. but it is said to be serviceable in the former. It possesses some narcotic powers and therefore should be employed with caution.

The *Chenopodium Anthelminticum*, or the Jerusalem oak, is another celebrated article of our own country every portion of the plant is employed. The juice of the leaves is much preferred, ʒss. of it being given night and morning, on an empty stomach. The powdered seed is also used. Lately the oil of the seeds has been very popular and has superseded very much the other medicinal preparations. it is given in every species of worms, and I once thought with great advantage. But I have so often failed with it that I begin to distrust its virtues. The dose for a child of 3 years old is q̄ss. or ʒj. twice a day; this is to be continued for a few days when a mercurial purge is to be given; if not successful the same process is to be repeated. The dose mentioned which is usually ordered, is not near large enough; to a child 3 years of age, q̄ss. xij. or xv, may safely be prescribed.

A great objection to this oil is, that it is so unpleasant; the taste is an acid bitter, and the smell particularly offensive and very tenacious. Give it in liquorice juice. Could we dismiss these disagreeable properties, it might be considered as a most valuable medicine. All these articles are procured from our own country and it is worthy of remark, that so large a proportion of our anthelmintic medicines should be indigenous. I am however to mention a foreign article, which is said to possess considerable power. I allude to the *Geoffrea mermis*, which is procured from the West-Indies, especially from Jamaica. the bark is the only part employed, and is used in powder, decoction, or Extract. The decoction is preferred.

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℥j. of the bark roughly powdered is added to a quart of water, and slowly boiled till it becomes the colour of Madeira wine. Care and attention are required in its administration, as it produces often a violent vomiting and purging, but in every case however small the dose, it is likely to distress the bowels, and should therefore seldom be given to children. The practitioners of the East Indies speak highly of it. The dose of the decoction is ℥j. to an adult, of the extract the dose is gr. iij. of the powder ℥j. as to children the dose should be graduated according to their age. —

Ascarides are small diminutive worms which chiefly inhabit the rectum. They are distinguished by an itching about the anus, which is aggravated at bed time and often prevents the patient from sleeping. Sometimes there is some inflammation and tumefaction about the fundament, with Tenesmus and bloody evacuations. To these may be added all the symptoms indicating the existence of the Lumbricoides. There is one symptom however which is conclusive of the existence of Ascarides. They are apt to creep out of the intestine, or are to be seen entangled in the faeces. The general remedies are calomel in combination with some of the drastic purges; which I employ with the greatest confidence, as they are often successful; but sometimes they fail, but this no more than what happens with all other Anthelmintics. As might be expected from its action on the rectum Aloes has been much employed, and as a purgative it is often useful. The Hierapiccia, consisting of aloes and Cinnamon is often useful, and much more efficacious than the aloes by itself. It is becoming very popular by itself, and I think very deservedly. ℥j. of the powder is infused in a pint of ardent spirits. ℥ss. is to be given to a child 3 or 4 years of age, till it purges. Where the spirits would be injurious water will answer. After all injections are the proper means to be employed. By them worms may be washed out of the rectum or be destroyed by the deleterious effects of the article used. There is none better than Aloes

of the body is composed of a number of small parts, each of which is
 so small that it is not visible to the eye. These parts are called
 cells, and they are the building blocks of the body. The cells are
 arranged in a regular pattern, and they are held together by a
 substance called tissue. The cells are the smallest units of the body
 that can live on their own. They are the basic units of life, and
 they are the building blocks of the body. The cells are arranged in a
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 cells are the smallest units of the body that can live on their own. They
 are the basic units of life, and they are the building blocks of the body.

with Milk. Zij a ij . being dissolved in a pint of milk - Injections of the fol. 133
lowing articles are much employed. Lime water, olive oil, Melted Butter,
a Lard, The juice of Lansy, Garlic, Pice, Rue, worm wood, Tobacco by
smoke or infus; The camphor Tea, Solut: of asafetida, hepar Sulphuris,
the mercurial ointments, Salt, a strong solution of the last article is often
employed with the most unequivocal advantage. These injections being exhibited
as often as expedient, we should give an active purgative. The worms having
been made sick and feeble by the injections, will be ~~soon~~^{more quickly} brought away by the opera-
tion of the purge.

Trichuris. as yet I have known of no particular symptoms indicating their presence.
The consequences of their presence being very similar to those arising from the other
species of worms, nor is this treatment any way peculiar.

Tania is the most difficult to remove; it is not indicated by any peculiar
symptoms but by those of the Lumbrici - perhaps there is more of a ^{heavily} drawing sensa-
tion at the pit of the stomach and that indescribable wretchedness accompanying
bowels complaints. Emaciation takes place more readily from this than the other species
tumefaction of the belly, ^{some colic} sense of weight, ^{on one side} countenance leaden, tumors, &c. anomalous
symptoms, tension of the nose, a discharge of a part of it, pupils dilated - vertigo -
Convulsive twitches.

Mercurial ppts, prove more successful than any others, but they are often in-
efficient. I have used Calomel, Ethiops Mineral and Corrosive sublimite. The
last is best adapted and is given in solution in preference to pills as in this form it
is not so difficult to have the dose proportioned accurately. The dose is $\frac{1}{4}$ or $\frac{1}{8}$ of a
grain every morning. The most drastic purges are resorted to as Lalap, Scam-
mony, Gamboge, &c. The Gamboge is generally preferred and is considered as a
sovereign remedy in the dose of not less than gr. x. a xv. by which active vomit-
ing and purging will be induced. I have not much experience of the tape

carb: of ammon with the opt: of turpentine said to be very useful,
 when it protrudes out of the anus a drop or two of Prussic acid applied
 to it to terminate its existence.

worms; but I conceive the active purges to be the best remedies - The only fact which I know personally of the Gamboge is the following - I had during this winter a patient who was affected with the *Tenia* for 4 or 5 years, he had tried various remedies without success - I ordered him gr. xij. of the gamboge every other day - the 2nd dose brought away 10 feet of the worm and he has had no return of the complaint, 5 or 6 weeks have passed - The Croton oil has been recommended - useful in the expulsion of other worms.

The Polypodium felix mas has been employed since the time of Galen. It has been too much celebrated - from my own experience I would place it, perhaps, the dose is ℥j or ℥ij. it is a strong purgative and may act as ~~other~~ purgatives. Cullen thinks its powers rather doubtful. Dr. Jones however relates a case in which a decoction was given for several days when 45 feet of the *Tenia* came away. The *Felix mas* is the basis of Madame Nouffleur's nostrum which was purchased at an exorbitant price by Louis the xv. of France. *Apis milk* lately recommended.

oil of Turpentine is given in the dose of from ℥ss. to ℥ij. in the morning, when the stomach is empty; one of the best remedies. Given in the dose above recommended, it merely produces at first a little warmth at the stomach with very slight uneasiness, afterwards there is sometimes heat, thirst, headache, and other symptoms of slight fever. It appears most effectual when given by itself; strangury is less likely to occur, than when given in small doses. I have not used it in any unequivocal case, but there can be no doubt of its utility, as the periodical journals give us the testimony of the best European writers in its favour, as Fothergill, Lettsome, &c. Bold as this practice appears to be, I believe there is nothing to be apprehended. I have given a large wine glassful every morning with the suppositions that *Tenia* was present, without any injurious effects, and it is reasonable to suppose that it may prove as useful in other cases of worms. In the above instance several *Lumbricoid* worms were brought away. The *Dolichos Purpureus* is a plant of the West-

and the parts used in medicine are the hairs or spicula attached to the 137
rod. Its operation is supposed to be merely mechanical, it is thought to prick
or drive out the worms. The dose is $\frac{3}{4}$ ss. mixed with a little Symp or me-
cilage. It is said to be very efficacious. Chamberlain of London procured such
reputation in the cure of Tania, that the practitioners of that place usually sent their
patient to him, he finally revealed his secret and published a paper detailing his
success with the couchage.

In addition to these a variety of other articles have been employed, as the blue
vitriol, Tin, Arsenic, &c.

I have now noticed the different kind of worms and their treatment, except
the Tricæuris, which I have never seen. But to prevent the reproduction of worms,
it is necessary to remove the causes which produced them & the circumstan-
ces which favoured their existence. I have remarked that they depend on a
weak or depraved condition of the digestive organs, which therefore must be changed
by lime water, Bitters, Tonics, diet, &c. &c. Carbonate of iron excellent to
do away that condition of the abt. canal wh^{ch} favoured their production
Also common salt excellent.

and the last year of his life he was a member of the
 the first of his family to be a member of the
 a share with the others. The year is 1811. He was a
 village. It is a fact to be remembered that the first of his family
 education in the year of his birth, that the first of his family
 without having, he finally succeeded in his studies and became a
 society with the church.
 in a lifetime to this society. He has been a member of the
 since, in 1811, he was a member of the

He has now retired to the quiet life of a private citizen
 the first of his family to be a member of the
 it is a pleasure to remember the errors which he has
 as well as his own. I have remarked that the first of his family
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Diseases of the Respiratory System.

139

Catarrh.

A catarrh consist in an increased secretion from the mucous membrane of the nose, throat, and bronchia, accompanied with more or less fever; generally then called a cold. It is induced by various changes of the weather and is therefore almost endemic to variable climates. But it is also brought on by lessening the quantity of clothing, by exposure to cool air, by sleeping in damp sheets, or wet rooms; and indeed by any thing that suppresses the perspiration. It commences with a slight difficulty of respiration with a sense of fullness, and pain in the head, with the distillation of an acid fluid from the eyes and nose, which, frequently excoriates the skin. With this coryza, as it is called, there is great lassitude and muscular soreness, cold shiverings, or at least a greater sensibility to cold air is experienced in this early stage of the complaint. In a short time there is soreness, with a sense of roughness in the trachea. There is also a stricture across the breast with cough - such is the ordinary character of this disease at its commencement. In a few days the fever declines & the cough breaks, as is manifest from the copious and easy expectoration of a thick mucus. Cases are by no means rare, in which from the violence of the symptoms or from relapses, the disease proves very obstinate & dangerous.

It is not prudent in any case to neglect a cold, especially in persons who have weak breasts, with whom the complaint is usually intractable. What was at first a mild catarrh has often terminated in one of the Anginose affections or in diseases of the heart. In children I have seen it terminate in croup, and in adults in Peripneumony. But a far more terrible disease in many instances arises from it. I mean Consumption, which, very often arises from neglected or ill cured catarrh.

Post mortem appearances

1210 "Upon dissection of those who die of Catarrh, the inner membrane of the Trachea appears to be much inflamed, and its cavity to be filled with a considerable quantity of mucous fluid. The same morbid state is likewise communicated to the Lungs, which seem loaded with matter of a similar nature, producing suffocation?"

"Catarrh is to be distinguished from the measles by the great mildness of the febrile symptoms, and by the absence of many of the symptoms accompanying the latter?"

④ Hoffman's anodyne Liqueur & Laudanum.

Pathology.

Treatment. The remedies for catarh are those which are necessary in its forming, or in its confirmed stage. I find nothing to answer in the forming stage of catarh so well as a moderate dose of Laudanum. This I have found very effectual in my own person in numerous instances and still oftener in my patients, so that I cannot well be deceived. It excites a gentle glow and warmth over the system without perspiration. I am not satisfied that any thing is gained by combining it with any diaphoretic as is usually done. It appears to operate as a diffusible stimulant, overcoming the incipient stage of the disease. I have had a conversation lately with Dr. Physick on this subject, he fully agrees with me, and states that after the experience of 20 years, he has found nothing so useful as the Laudanum by itself. But where from any circumstances we are precluded from using it; we are then to recur to Gentle Sweating by simple means, as the Peditivium, (it may be made stimulating by salt, &c.) Antimon: wine, Spt. & Nit. - By warm beverages, particularly by Molasses whey, Barley water, Vinegar whey, Egg sea, Warm Lemonade, Spts. Minderi, Eupatorium, (an infusion of Cicuta in Ether inhaled.).

In the confirmed stage of Catarh, where the disease is fully formed, more energy is required. In the first place V. S. is demanded: the fever and pulse indicate the propriety of this practice; and by the same guides we are to be regulated as to the quantity to be taken and how often it should be repeated. Generally a single bleeding if it be copious will answer; but in many instances it will be necessary to repeat. I have seen 300. taken at different bleedings, before the disease yielded.

① Calomel is best.

Calomel

Calomel

In aiding the Luncet, Purgings should next be had recourse to, and here the 143
Saline medicines are universally preferred. Either of them may be employed
but they are more effectual when given in combination with Tart. Emet. & Nitre,
as in the following.

R^x. Sulph. Soda — ʒj.

Nitre Potassa — ʒij. to ʒj.

Tart. Emet. — ʒj.

Water — ʒij. a w. m. a table spoonful

3 or 4 times a day. — It is a very favourite practice to employ Antemion: Wine
with a view of exciting slight nausea, & of relieving the surface. This practice is very con-
formable to our theories on the subject. In catarrh the skin is always dry & constricted,
and therefore diaphoretics are useful. On this account they have been much used,
and is the universal practice in Great Britain, where coughs are very numerous. but
it will not answer in our country where Catarrh is a more inflammatory affection,
demanding D. S. Purgings, &c. both direct & copious. An Emetic is very valua-
ble, & produces more decided effects than any thing else. When exhibited early it
always removes or greatly mitigates the disease, but it is a very unpleasant remedy &
can seldom be given except in children: not even here where there is any pain or inflam-
of the chest. When these symptoms occur Bleeding, General & Topical, should be re-
sorted to, as also prizing very freely. After which the nitrous powders are useful.
but a little confidence is placed in Blisters. These are often very useful, and
in some cases indispensable. but are very mischievous when employed ^{too} early. It is
in the declining or advanced state, when there is a lingering cough and pain about
the chest, that they are beneficial. Every one knows how much cough mixtures are
employed in these cases. But numerous as these are they all contain Opium in
some form. These mixtures should not be indiscriminately employed. When
taken before the cough has been broken, they are eminently mischievous; increasing
the tightness of the chest and the inflammatory symptoms. After that point they
are not only useful, but very important. Of the various formula, I will detail

a few of the best. with the view of assisting the expectoration and relieving 145
the cough I prefer the following. R^x. Extr. Glycerh. — ℥ij.

to warm water — — ℥iv. rub them together

untill the Liquorice is dissolved, then add Spt. c nit: — — ℥ij.

Vin. ant: — — ℥j.

Laud. — — qts xL. The dose is ℥ss.

pro re nata every hour or two hours; this is the Flown mixture —

Another formula is the following. R^x. oxy. Scilla mar: — ℥j.

Ant. vin. — — ℥j.

Spt. c nit: — — ℥ij.

Laud: — — qts xL.

Gum arab. — — ℥ij.

Aq. — — ℥iv. m. Dose ℥ss.

the following also is very excellent. R^x. Sal. Tart: — ℥j.

Vin. ant. — — ℥j.

Laud: — — qts xL.

Spts. Lavend. Comp: ℥ij.

Aq. — — ℥iv. m. Dose the same.

Loaf Sugar, and Lemon juice or vinegar enough to wet it, and put over coals till
you make it into a Syrup, is very useful.

After a catarrh has become protracted and totally destitute of inflammation;
then the balsamic medicines are useful. of these I shall say a good deal hereafter.

The best in protracted catarrh is the Balsam of Lolu given in the form of Tin-
cture.

R^x. Tinct. of Lolu. — — ℥j.

Laud: — — ℥j. m. qts xL. or L. are to

be taken 3, 4 or 5 times a day. The Alkalies both mineral and vegetable have
obtained great reputation in Portugal, in the U States; so as almost to supersede
all other remedies. I first introduced the practice into this Country. The formula
la

as was originally given by Mr. Pearson, and brought it with me on my return from 1814 Europe. When speaking of pertussis I will detail it to you. Efficacious as it is there, it is no less so in the catarrhal affections, as are also the formula already submitted. Little however would be gained by the above means without a strict attention to all the Antiphlogistic measures. The Diet should be of the lowest kind. Consisting chiefly of demulcents, as Barley water, Flax-seed tea, Sugar and water, Solution of Gum Arabic: all of which may be rendered more agreeable by the addition of any vegetable acid.

R Gum arabic. — 3j.

Sugar Candy — 3j.

Cassia Tatar — 3j.

m. dissolved in a quart of water makes an excellent beverage. It is fortunate that these articles are not only nourishing, but are very excellent in any medicinal point of view. I wish to impress on your mind the necessity of low diet in catarrh, especially as there is great prejudice against it. "To feed a cold and starve a fever" has become a vulgar aphorism, but is certainly incorrect.

When any thing more is necessary than the above drinks, vegetable substances only should be employed, as Rice, Hommony, Turnips, potatoes, or the vegetable broth. This is very pleasant and you should recollect its composition which is as follows. Take two turnips, two potatoes, one onion and a little celery, boil them in 3 pints of water down to 1 pint; then strain it on some dry bread toasted. This you will find very useful and agreeable on many occasions. The vegetable Jelly, will also be found very advantageous and equally pleasant with the animal jelly, when that is too stimulating. It is prepared by taking equal parts of Gum arabic, or Barley, or Rice, and sugar, & gently boiling them with a little water to a jelly.

This is the Treatment adopted to Catarrh as it occurs in young persons, and those of middle age. But in old persons it has some peculiarities and is not infrequently fatal.

It is distinguished by the suddenness of its attack, by the difficulty of respiration, by the flushed countenance, by the slow feeble and irregular pulse and great accumulations of fluids in the lungs. It is well named the catarrhus notha. and arises from

a debility of the pulmonary organs, by which fluids are accumulated in them 149
there is not sufficient strength to expectorate.

In these cases where the pulse will in any way bear it, V. Section is to be employed. It equalizes the circulation and greatly relieves the urgent symptoms; but it should be directed with caution, and never carried to any extent. An Emetic is always to be had recourse to. The Spécacua is the best: by this much is gained, it discharges the accumulations, establishes a more regular circulation, relieves the respiration and prepares for the employment of other remedies. A Large Blister should now be applied over the chest. It imparts tone to the lungs, and is well calculated to prevent relapses. But sometimes where there is great depression produced by the extreme debility of the lungs, topical depletion may be employed with signal advantage. Leeches or Cups are used. The last are preferable and should be applied to the back in all pulmonary diseases. In this species of Catarrh Opium may be employed in all its stages. It does no harm and is often most beneficial. It is given either alone or in combination with expectorant articles, with Squills, Gum ammoniac, sol. alk, Polygal: Seneg; ^{with} Musk, Myrrh, & other balsamic articles.

Catarrhus Epidemicus. There is another form of catarrh, of which I am to say a few words, and that is the Catarrhus Epidemicus. This is a very wide spreading disease; more so perhaps than any other; prevailing not only in our country but over the whole world. From this it was named by the Italians Influenza. It is also of very ancient date, being described in the earliest records of medicine. and as regards its course it generally progresses from the north towards the south. In some instances it has pursued a contrary direction. In almost every instance there is a very striking analogy between it and common Catarrh: There is one point however in which they differ, which is ^{as} to their origin. Catarrh is produced by the sensible qualities of the

Common catarrh differs from Influenza in only having the mucous
 tissue of the Pulmonary organs affected. whereas in Influenza the mu-
 cous tissue of the *Prima Vía* is also affected. —

atmosphere; while Influenza proceeds from a vitiated state, not at all understood. 51

It often arises from contagion, but this is wholly gratuitous, and contradicted by various and numerous facts. It is stated that persons who have been wholly secluded from infection have nevertheless been seized. That this is the case in hospitals and more particularly in the monasteries of Catholic countries; where the monks who have had no communication without, have all at once been affected. Influenza also obeys all the laws of Epidemics, recurring at stated intervals and spreading over the whole extent of a continent, and giving its own characteristics to all inferior diseases. It is sometimes inflammatory and occasionally Typhus in its action. In a majority of cases however it is of an active inflammatory type, assuming the same appearances as catarrh and demanding the same remedies. When it has a typhus form which is very rare a different treatment is demanded, which has already been detailed under the head of our winter Epidemic. Influenza has appeared more than once in ~~our winter~~ the United States: and has, especially in the Southern States, assumed in some cases various bilious symptoms; when this appearance is manifest, the treatment must vary accordingly. Hence Emetics & mercurial purges are demanded —

Cynanche Trachealis or Croup.

this is known by several names. but the one commonly employed is Croup or the Hoars, which is a corruption of heaves, and was so named from the difficulty of respiration.

The best name is however *Trachitis*, as this introduces uniformity into our nomenclature; as the inflammation of the liver is called, *Hepatitis*; that of the Kidneys *Nephritis*; of the brain *Phrenitis*, &c. It has always been considered as a modern disease, and the first description was published about the middle of the last century by professor Home of Edinburgh, the cotemporary of Cullen. I find however that in the earlier volumes of the Royal Philosophical transactions of London. there is a paper by an obscure practitioner who accurately describes this disease as suddenly appearing among the children of Cornwall. *Trachitis* is confined very much to early life, from the 1st to the 5th year, and attacks robust children; but I have known it to occur in children within the month and to adults. The celebrated Washington is said to have died of this disease, & I know two Ladies now in this city who are always attacked after exposure; but these cases are very rare. It appears in some instances to prevail in families. Notwithstanding what has been said to the contrary, it is never propagated by contagion, but arises from the influence of a cold or moist atmosphere, and therefore generally appears in our spring months, and near the sea, &c. It is said sometimes to prevail as an epidemic; this I have never known, but consider it very likely. It is certain that it is an Epidemic to particular places, and is very closely confined to them. Thus Baltimore is singularly exempt from it; while at Fells point within two miles its victims were very numerous; so also at Edinburgh in Scotland, there are no cases of it, while it rages with great fatality at Leith a short distance from Edinburgh.

There has been no little discussion among nosologists, whether this is a *Spasmodic* or *Inflammatory* Complaint. When it is suddenly induced I have no hesitation of believing it to be purely *Spasmodic*. and the dissections of those who have died in the first stage confirms this opinion, as no vestige of disorder can be found. Where however it comes

(smoking a pipe or a leaf of tobacco applied
to the sternum)

on slowly, I think it is chiefly inflammatory, but whether it is one or the other is a 155
matter of but little importance, as the same treatment is necessary. No remedy is so pro-
mpt in the reduction of spasms of high action as V. S., and none so unavailing and in-
appropriate as the antispasmodic substances.

Croup variously makes its attacks. It commonly comes on at one night, and sometimes
without any premonition or exposure to its ordinary causes. The child wakes up with
a hoarse, dry, stridulous cough peculiar to the disease, which has been aptly compared
to the sharp sounds of the barking of a dog, and in other instances to the crowing of a cock.

Concomitant with this, there is a distressing difficulty of respiration, menacing,
in some instances, suffocation, with a flushed face, a quick irritated pulse, an
unusual degree of restlessness and anxiety, with a sort of indescribable wretchedness.

The child will not remain long in one position, nor can its complaints be in any
way appeased. It whines, and cries, and frets, and seems to be excessively uneasy,
without suffering any very positive pain.

Cases of this nature are probably dependent on spasm, and terminate fatally in a
very short time, where relief is not afforded. But on many occasions, the disease advances
gradually, with the ordinary catarrhal symptoms, such as heaviness, suffusion of counte-
nance, deflections from the eyes & nose, a harder and more shrill cough than usual, and with
various degrees of fever, which, with the cough, is always exacerbated at night, and espe-
cially after the child has slept. Completely formed, there is no material difference between
the two species of croup, and henceforward their progress is nearly, or perhaps exactly similar.

Treatment. My mode of managing this disease is exceedingly simple, and I have
been so successful with it, that I approach this disease with more confidence, than
almost any other to which children are subjected. I commence with free Vomiting,
for which I prefer the Santarized Antimony, exhibited at short intervals, as
being one of the most certain and powerful Emetics. When it will not purge, continued
with Spicaeantha and Calomel it seldom fails. The warm bath is to be re-
sorted to at the same time and the patient be kept in it 10 or 15 minutes. It is high-
ly

① on the back of the neck)

(if the inflammation should extend over the
 forehead a blister on the forehead and another on
 the back)

(treating by ovens powder)

beneficial, promoting the operation of the Emetic, and will, indeed, sometimes alone, 154
cure the disease. If however the emetic should not operate, or not be attended with
the desired effects, I bleed copiously, and afterwards repeat the Bath & Emetic.
The disease must be very obstinate not to yield to this practice. But if it should not,
Topic ab bleeding. Cups to the side of the neck, Leeches are to be preferred is to be
employed; after which a sinapism or blister is to be applied over the whole neck
from ear to ear. If purely spasmodic, a piece of flannel wrung out of Turpentine
and put on the neck, or a sinapism is very beneficial. If these should fail or the sy-
mptoms prove very violent, I would immediately bleed "Ad deliquium Animi."
When carried to this extent, bleeding is invariably successful. In my own practice
and in that of the practitioners of this city, I have never known it to fail. As soon
as syncope is induced, the hoarseness, cough, laborious respiration, all disappear.
A small bleeding only abates, but a large one alters the action.

The disease is then broken and the system rendered susceptible to the operation of
our medicines. I now resort ^{to} Cal; not in small & repeated doses, as is usually the
custom, but to give it in the largest possible dose, so that it may freely purge. In this
way it carries off the residue of the disease, prevents a relapse, and confirms the
convalescence. If any cough, hoarseness or tightness of the chest should remain;
I resort to the Polygala Senega as an Expectant. In extinguishing the rem-
ains of croup, it is very advantageous. Some employ it early as an Emetic; but I
prefer the last: Emet. alone or in Combination for that object. This is the practice
in the early stages; till this time the disease is restricted pretty much to the upper
portion of the trachea, and consists either in a spasmodic constriction of the glottis,
or an inflammation of the membranous lining of the Larynx. But if it has
lasted for 8 or 10 hours, it extends itself to the Bronchia, and even into the subst-
ance of the Lungs, producing sooner or later vast collections of mucus & phlegm,
or exudations of coagulable lymph, or an engorged state of the pulmonary or-
gans with blood. The symptoms at this critical conjuncture are materially

o Squire

(Carl Ammon)

different. Now we have all the manifestations of an interrupted and defective 159
circulation. The lungs loaded & oppressed, very imperfectly execute their functions.
The complexion is mottled, and the cheeks have a circumscribed flush, with
some mixtures of lividness. The eyes are prominent & inflamed. The pupil is often
widely dilated, attended by an expression of countenance wild, haggard, and
ghastly. The respiration is exceedingly laborious, with a full & disturbed pulse,
or the child, sinking under disease, has its breathing rather more tranquil, with
a weak and irregular circulation - This I believe depends upon an accumu-
lation of mucus and other fluids in the lungs, or what is termed an engorged state of the
lungs. It is nothing more or less than *Peripneumonia notha*.

The Indications are to relieve the lungs of oppression, and to re-establish a free
and equable circulation. This is to be done, by placing the child in a warm
bath, and while there to induce copious vomiting by the most active substances.
The Sulphate of Zinc is well adapted to these cases, or if it is not to be obtained the Tartar
ized Antimony with calomel and Speacuanha. The juice of Garlic is an active emetic.
When V. Section is to be resorted to, but with great caution. Little should be taken and
the consequences be attended to. This small bleeding is to be attended to from time to time
till our views are accomplished. The reason of this great caution is, that there is so great
a stagnation of blood in the lungs that a sudden evacuation would not suffer the sys-
tem to react, and would prove immediately fatal. Where V. S. cannot be employed, lee-
ches or cups will prove very beneficial, and is most serviceable when performed on the back.
Gij. or iv. thus taken will often produce immediate relief. After this a blister is to be
applied over the whole breast: or if this is too slow in its action, clothes wrung out of
boiling water, are to be used; or what is better rags dipped in the decoction of Can-
tharides or Spts. Turpentine. We should also endeavour to promote expectoration by
exhibiting the Polygala Senega, the oxymel of Squills, or Ant. Wine, alone or in
combination with rob. alk. will answer very well, also Coxes Hare Syrup.
At this juncture Calomel is very proper. It is in all cases an excellent expectant.

① Barbarized Asthenia

The appearances I have observed on dissection relating to the Larynx were slight marks of inflammation, with more or less of mucus, such as is formed by all the secreting surfaces. Why I have not seen the membranous production is perhaps susceptible of explanation. To throw coagulable lymph, of which it is composed, requires the vessels to be highly excited, a state which, by the copious depletion adopted in the cases that came under my notice, was probably prevented. - C.

and in some of these appears to operate as a specific. By some practitioners, the whole treatment consists in the free exhibition of Calomel. The doses which are given might appear incredible, did we not recollect how much the susceptibility of the system is diminished. In Edinburgh I have seen \mathfrak{zj} a \mathfrak{j} of Calomel given to Children a few months old without any bad consequences. But I am confident if its exhibition had been preceded by bleeding, that $\frac{1}{10}$ part of the medicine would have been much more certain & effectual. From what has been said it may be collected that I consider this in the first instance as a spasmodic disease, & afterwards as a case of Pneumonia Notha. What should be particularly remembered by you is the new view which has been presented of it in its advanced stages; which, though not generally entertained or adopted is fully made out by the phenomena of the disease and by the testimony of dissection. To this last point, we have the authority of Cheyne, who has written with ability on the disease, and the still higher authority of Baillie, not to mention other names of less distinction, all which has been confirmed by dissections, conducted in this country. This is important not only in a theoretical point of view, but is of great practical advantage. The venerable Dr. Baile of New-york, who was among the very first to adopt a correct pathology of Croup, says in his essay on the subject, published in the year 1776, that he has found the pulmonary organs so dense and solid, from sanguinous congestion, that they exhibited the appearance of the structure of the liver.

Much has been said of a membrane forming in the Larynx. This has been denied by some authors, and by others has been considered as the cause of all the phenomena of the disease. It is true that this membrane is sometimes formed, but very rarely, not one in 500 cases, and when it does exist, has I believe but little influence.

I have known Tracheotomy performed in several cases, under the supposition, that this substance impeded respiration; but it has been to no purpose; and even if it were removed, I doubt if it would afford much relief; as I have endeavored to shew that these symptoms arise from the engorged state of the pulmonary

It has been proposed to stimulate the fancies with
 maricain acid with honey or sugar (but I have
 succeeded with these in one instance) Chopped

especially vomiting and loss of blood

organs. There are two causes which will account for the great fatality of this 163
disease. which has been considered as one of the opprobria medicorum - the
first is an erroneous notion of its pathology, and the second the feeble mode of
management which has been followed. ^{in the early stages} A notion has greatly prevailed, that
children will not bear the action of powerful remedies. On this account many,
especially European practitioners have been very mist in their practice, and the
disease proved so fatal, that the Emperor of France offered 10.000 francs to
the person who would produce the best dissertation on the subject. After all, this was
given to a person who advised the exhibition of the Hepar Sulphuris, which in this
country would certainly kill every patient.

I have already remarked that children possess a greater tenacity for life than adults.
Infants have been found living at the breast of their mothers, who have been frozen
to death. They are well known to resist contagion better and recover more readily not
only from contagious, but all other diseases and bear the operation of remedies much
better. In children the fluids are in greater proportion to the solids than in adults.
From the fullness of their vessels they are more liable to inflammatory diseases and
require bleeding &c. &c. much oftener. My own experience proves that V-S.
may be employed very often with the greatest safety and advantage. Children also
possess much greater restorative powers, of their system, ~~you~~ and recruit with
much more rapidity than in more advance years. For these reasons I never con-
sider the acute diseases of children entirely hopeless, but by the diligent employ-
ment of active remedies, which assist the respective powers of their system, you
may often relieve the most desperate cases, establish your reputation, and reflect
honor on your art.

The first of these is the fact that the
 human mind is not a blank slate at birth.
 It is a complex of ideas and feelings
 which are inherited from our ancestors.
 These ideas and feelings are the result
 of the experience of our ancestors.
 They are the result of the struggle
 for existence. They are the result
 of the fight for survival. They are
 the result of the battle for life.
 They are the result of the struggle
 against death. They are the result
 of the fight for immortality. They
 are the result of the battle for
 the future. They are the result of
 the struggle for the good. They are
 the result of the fight for the just.
 They are the result of the battle for
 the true. They are the result of the
 struggle for the beautiful. They are
 the result of the fight for the noble.
 They are the result of the battle for
 the wise. They are the result of the
 struggle for the brave. They are the
 result of the fight for the strong.
 They are the result of the battle for
 the free. They are the result of the
 struggle for the equal. They are the
 result of the fight for the united.
 They are the result of the battle for
 the happy. They are the result of the
 struggle for the peaceful. They are the
 result of the fight for the just.
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 They are the result of the battle for
 the free. They are the result of the
 struggle for the equal. They are the
 result of the fight for the united.
 They are the result of the battle for
 the happy. They are the result of the
 struggle for the peaceful. They are the
 result of the fight for the just.

Cynanche Laryngitis

This was first noticed by Bailie. It commences like the sore throat, difficult respiration, sometimes loss of voice, pain by pressure, pulse after a while sinks, skin cold, dyspnoea, &c. duration generally 3 or 4 days. A pre disposition seems to exist in some families. It may be brought on by the extension of inflammation from other neighbouring parts.

It may be distinguished from Trachitis, by its not having cough or that peculiar noise attendant on croup, resembling the crowing of a cock; distinguished from cynanche tonsillaris by its not being attended with difficulty of deglutition.

on Dissections we find the lining membrane much thickened, extravasation of coagulable lymph, also inflammation of the tonsils and velum pendulum palati, the termination of the bronchia filled with lymph or mucus and the cells of the lungs filled with serum.

Treatment. Copious V-S. Leeches to the throat, Epispastics to the throat, Purges of calomel. Emetics seem to be condemned. It is marked by paroxysms, & then opiates have been used, but I do not think the practice altogether proper.

In the advanced stages, the operation of Laryngotomy. Dr. Bailie recommended it when the disease continued longer than 30 hours. Dr. Physick does not advise the operation in the advanced stages, because we generally find the lungs suffocated with mucus, resembling Bronchitis, &c.

Elongation of the uvula

When the uvula is elongated in the relaxed
stimulating gongles burn alum, and when
it is bloated with blood, leeches to the part occupy
the part, burning alum, or an operation

- ③ "Where cynanche tonsillar has proved fatal by suffocation, little more than
a highly inflamed state of the parts affected, with some morbid phenomena in
the head, have been observed on dissection."

Diagnosis it may be confounded with
scarlatina, in the pure inflammation of the
tonsils there is no eruption

Rubefacient as Noto Purpurin or
a warm lotion around the neck

Gum arabic and sugar, allowed to
melt over the fauces,

When the tongue, pharynx, larynx
is involved depletion is more demanded
scrapping the tongue, precisely a
in paronychia but it is also
required when the abscess is far over
in the throat, a plume of tobacco on
the throat to excite vomiting
When a false membrane is thrown

out, a strong solution of Rhus
caustic a mixture of acid and honey
or 3j of water, applied with a hare pen

Cynanche Tonsillaris or Tonsillitis

There is pain and difficulty of deglutition; inflammation reaching almost to its height there is great difficulty of swallowing; it is generally without fever a constitutional disease; appearance of phlegmonous, sometimes the appearance of Erysipelas; also cases occurring in scrofulous habits. Originates exclusively from cold, some persons very liable to it. ③ Proceeds from gastric disorder,

washing the throat every morning with cold water is said to be an excellent preventative. In the first stages gargling the mouth with an infusion of Cayenne pepper, or solution of salt, or Brandy & water. These not succeeding in a case, we must reduce the inflammation by evacuations as Emetics, followed by saline Purgatives, and D.S. provided the patient will bear it. But when the tonsils only are affected, it will not produce so much good, as when the general system is affected. When the inflammation is local, topical depletion as Cups or Leeches; and even losing a few tea-spoonfuls procures great benefit. Also after this a Blister applied over the whole throat; also poultices, as of potatoes placed in a stocking, or hot corn mush, both are very retentive of heat. Gargles of all kinds are pernicious so long as inflammation remains; but after it subsides inhalations of warm water, vinegar and water, &c. &c. suppuration may take place, the surface of it becomes yellow, it should be punctured, and then the use of emollient gargles are proper.

The Tonsils are sometimes enlarged, owing to this disease, and often occurs in scrofulous patients. The astringent gargles are highly useful; especially the infusion of galls, which will generally dissipate them; But sometimes a surgical operation is necessary. sea air and bathing, very efficacious.

relieving this disease

But Mr. Han either is coarsening the whole surface with burn alum. Or blue pill.

Cups leeches. Polishes in extreme debility. Mark the white when. &c.

sometimes it comes on with little or
 no pain and is dispersed about the body,
 but more frequent it comes on with
 from swelling of the parotid and great
 pain, an attack over aways, the disposition
 to a second, diagnosis is differs from
 common inflammation in the peculiar
 pain the influence of sweet substances
 is is epidemic, and is attended with
 fever, it is milder in early than
 advanced life, and is more liable to
 translocation in men and women than
 children. Pathology is is a specific
 inflammation treating the part with
 Raud, oil, & brand, but in violent
 cases R. S. S, in metastasis cover the
 throat R. S. or Topic warm a cold
 apply purges and where the bow
 is disordered an Emetic, it often
 disperses the swelling,

Cynanche Parotidea or Mumps. or parotitis

It is generally epidemic; generally one side is affected at a time, sometimes both; there is slight or no constitutional disturbance until about the 14th day.

It seems to me to be problematical that it is always induced by contagion.

The treatment is generally antiphlogistic. When it is very violent bathe the parts with

It is liable to metastasis in the male to the testes, and in the female to the mammae. Sometimes according to Hamilton the testicle has been entirely lost, or sloughed off. In women in whom the menses are about ceasing, it proves very difficult to cure; produces scintillosity, &c. &c. of the nerves, &c. &c. Local depletion, Emetics, Purgatives, &c. - (low, were seen over emise, and the nerves, as mentioned in

Pneumonic inflammations.

are now to be noticed. Nosologists have divided these into numerous classes. thus when the inflammation is seated in the pleura, it is called Pleuritis or Pleurisy. When the Parenchymatous portion of the lungs, it is named Peripneumony. An engorged or suffocating condition of the lungs, with blood, &c. is called Peripneumonia notha, or bastard peripneumony; a Rheumatism of the pleura costalis, or intercostal and other muscles of the thorax, has been called Pleurodynia; again it is called Para Phrenitis when the pleura that covers the diaphragm is inflamed. But all these are far too artificial, and can afford no useful results whatever. Of the Pneumonic inflammations, I shall consider all under two heads, viz. Pneumonia vera, and Pneumonia notha. The first embraces pleurisy and peripneumony; as between these we can never draw any distinction and even Dr. Cullen acknowledges that no diagnostic sign can be given whatever. As to the precise seat of the inflammation; Lennae says we find the pleura inflamed independent of the parenchyma, or the latter without the former, again and again.

It is marked by pyrexia, difficulty of breathing, a dry cough, a cte pain in some part of the thorax, usually in the sides, sometimes in the breast or back, hard strong and active pulse. These symptoms are variously modified, but are the ones which point out the nature of the disease; flushed face, expectoration of mucus or phlegm, sometimes a little blood also assist in the prognosis.

I will read the history of the disease from an European writer; he observes that it comes on with a chill, and other symptoms of pyrexia; the pulse is not increased, nor the heat of the body augmented above its natural state. In many cases no difference is perceptible in the pulse at the commencement, and sometimes it is even enfeebled, this was first noticed by Sydenham. I may here notice that it was from this hint in Sydenham, that Dr. Rush first noticed this depression of the pulse, and the necessity

"The prognosis in pleurisy must be drawn from the severity of the symptoms. If the fever and inflammation have run high, and the pain should cease suddenly, with a change of countenance and a sinking of the pulse, great danger may be apprehended; but if the heat and other febrile symptoms abate gradually, if respiration is performed with greater ease and less pain, and a free and copious expectoration issues, a speedy recovery may be expected."

"The appearances on dissection are much the same as those mentioned under the head of Peripneumony; viz. an inflamed state of the pleura connected with the lungs, having its surface crowded with red vessels, and a layer of coagulable lymph upon it; adhesions too of the substance of the lungs to the pleura. Besides these, the lungs themselves are often found in an inflamed state, with an extravasation of blood or coagulable lymph in their substance. Tubercles and abscesses are frequently met with."

there was of bleeding under such circumstances. Our author proceeds by observing that the other symptoms of inflammation sometimes appear with the pyrexia, but that very often the fever exists for several hours before there is pain or any other symptoms. The pulse is now frequent, strong, hard and quick; but in some instances it is feeble, small and irregular; the breathing is laborious, and is much influenced by posture; the patient being more disturbed in his respiration when lying on his side affected, sometimes he cannot lie on either side, but only on his back. There is always a cough, but it varies very much as to violence, sometimes it is dry, but generally moist, the matter brought up varies in colour and consistence and is not unfrequently tinged with blood. There is always an acute pain, which is generally on one side and more frequently in the right than in the left. This account is concise and accurate. I only have to observe that in this country the pain is generally in the left side. I have seen but few cases where the right side was affected. In some cases the pain is placed under the sternum, clavicle and scapula, &c.

As to the causes they are very much the same as of other inflammations, as vicissitudes of weather, the direct application of cold, &c. It generally attacks persons of a robust make, and who have an inflammatory diathesis, and occurs chiefly in the winter and spring when the weather is very changeable.

The unfavourable signs are, the continuance of fever, delirium, short & laborious respiration, phlegm or dark matter only being thrown up. In the advanced stages, prostration of strength, livid lips, &c.

The Favourable signs are, the respiration becoming easy, cessation of fever, discharges of urine with a copious sediment, expectoration of puriform matter, this latter relieves the vessels of their turgescence.

Appearances on dissection shews the pleura inflamed, vessels injected, sometimes none of the marks of inflammation are seen in the pleura - effusions - adhesions, &c.

[The text on this page is extremely faint and illegible, appearing as a series of horizontal lines.]

Treatment. of all the diseases of the respiratory system, except perhaps croup, 175
this is the best understood and the easiest to be cured. so far as regards its early state
there can exist no hesitation as to the proper mode of procedure. All agree in the
necessity of prompt and copious B. S. even the prejudices of mankind are so far intrus-
ted in this practice that if any disease is named a pleurisy they will consent to bleeding.

A large orifice should always be made, that the blood may be drawn in a bold and
vigorous stream. there is no medical point better established than this, that much is
attained by the suddenness with which the evacuation is made; this is so true that
℥x. of blood taken in this way will be equal to ℥xx. drawn by a small and
contracted orifice. See what is said by Fordyce on this subject in his fourth
dissertation on fever. no exact rule can be laid down as to the extent to which
the lancet should be carried. But I am confident much more is to be appreh-
ended from its being used too timidly and sparingly than from its being carried too
far. I have never seen bleeding carried too far in pleurisy. But I have seen
many die for the want of it. In a stout person, in a confirmed pleurisy where the
symptoms are violent ℥xxx. may be taken at the first bleeding, and in some cases
it will be necessary to repeat it to the same extent in a few hours. When you are
called at the commencement of the attack you have a safe guide as to the quan-
tity to be taken. In such cases I do not tie up the arm till the pain remits, and the
breathing is relieved, whether this is obtained by ℥x. or by ℥. is no matter of conseque-
nce. But this practice will not answer for the advanced stages, and for this reason.

After the disease has continued for a few days, the capillary vessels indefi-
nitely of the heart and large vessels become affected, and the evacuations from the gene-
ral circulation cannot then have the same effect as at the commencement when
the disease is more general. Of this law of pathology which has I believe never been
distinctly pointed out we have many proofs. The whole class of Phlegmasia prove
it, as very often we cannot overcome the disease till we resort to topical evacuations,
as in ophthalmia, or Rheumatism, where general bleedings although necessary,

will not cure without Local depletion. In pleurisy this is very much the case¹⁷⁷ but we should not too hastily in this case resort to local means, as the disease demands large depletions. The diseases of the lungs for several reasons, and especially on account of the vast quantity of blood which passes through them, requires a greater detraction of blood than almost any other cases. It is also true that in Pneumonic inflammation evacuations were infinitely better borne than in any other disease. 20, 30, or 40 oz. do less than half the quantity in other cases of inflammation. This is so much the case, that it is a fact, it is almost impossible to induce syncope during the early attack. I have taken 40, or 50 oz. without the least tendency to fainting being manifest; but being satisfied that the force of the circulation is sufficiently reduced, we may then resort to local applications.

Here Blisters have been much celebrated; but as to the precise time in which they should be applied there has been great difference of opinion. My practice and that of many of the ablest practitioners is to postpone them till arterial action has been reduced, when they are attended with the most unequivocal advantage, by extinguishing the remnant of the pain and arresting the further progress of the disease. But if they are resorted to at an early period they aggravate all the early symptoms.

Candour however obliges me to acknowledge that many of the ablest practitioners embrace a directly contrary opinion. Dr. Griffith one of the first physicians of our city; states that after the experience of 40 years he is decidedly of opinion that blisters should be early employed in some cases he uses them previously to bleeding. Dr. Jackson professor of the practice of Physic at Boston unites in the same sentiment in which he is supported by most of the practitioners of that City. He agrees with Dr. Griffith as to their decided superiority at the commencement of the attack. To this I have only to observe that the evidence on the contrary

side is stronger and that I always follow what my own experience tells me is right. As preceding the blisters in violent cases much advantage will be derived from cups and Leeches to the part affected. These are very important, in many instances operating like a charm. They may be repeated at any stage of the complaint when there are any remains of Cough, dyspnoea, or pain. To this I would call your attention particularly; as it often happens, that we have urged the lancet as far as it is prudent, there will still be considerable activity in the pulse and local atony. Here the loss of Zvj or viij by cups is of infinite advantage. I have never seen it fail. When these cannot be obtained we may substitute warmth by fomentations with heated salt, ashes, &c. &c.

As yet I have said nothing of Purging which is so necessary in other forms of inflammation. I have already noticed the pulmonary complaint form an exception on this point and all that is necessary is to keep the bowels in a soluble state by the milder articles, as Castor oil and the neutral salts. I cannot help thinking we do not purge sufficiently in pleurisy of our country and especially in the southern States.

More confidence is placed in the Diaphoretic medicines and reasoning "a priori" we should conclude them to be well suited. But experience shows that except in the forming stage of Pneumonia so far from being useful they are actually and manifestly do harm. But in the forming stage a copious sweat will frequently keep it off altogether, or at least mitigate its violence. The best article for the purpose is the Pleurocy root. During the progress of the disease no diaphoretic should be employed, and only those medicines which conspire with the depleting remedies, as Nitre with Ipecacuanha or Tart. Emet. to which Calomel is sometimes added. Though not usually given to create nausea, I am not aware that there is any injury produced; when slight it has directly the contra-

ry

effect and is serviceable by relieving the constriction of the skin, and promoting expectoration, &c. 181

As soon as the disease breaks which is indicated by the loose cough and expectoration, we are to proceed exactly as in Common Catarrh.

Sometimes however there remains a bad cough, penurious and scanty expectoration with a tightness of the chest; in which cases nothing is so useful as opium, *Specac.*, and Calomel; and there can be no objection to this, if a slight salivation is induced. I do not know whether it would be good practice after violent pulmonary cases to induce a moderate salivation, when we have reason to believe the lungs have suffered much. It prevents relapses, and affords the surest guarantee against dropy, Consumption, &c.

Such is the practice in ordinary cases of pneumonia; but there are many varieties which it would be impossible for me to detail, but which must be left to your own experience. What I have said will answer for general directions. There is one variety however which is so common and so fatal that I cannot entirely overlook it. I allude to Bilious Pleurisy. This beside the ordinary characteristics of Pneumonia has moreover some peculiar symptoms. There is pain in the side, obstructed respiration, head ache, redness of the eyes, tumour of the countenance, considerable gastric distress, vomiting of dark bile, and generally there is a brown tongue, sallow complexion, the inflammation is also less active, and will bear less depletion, the system is depressed by one or two bleedings; it is therefore a very customary and correct practice to lay aside the lancet early and to evacuate the *primæ viæ* by Emetics and the mercurial purges. After which we should induce sweating by large draughts of the infusion of *Serpo.* which should be kept up by the same article for 24 hours. The *serpentaria* is well suited to these cases; the Bilious pleurisy usually occurs in miasmatic districts, and often has an intermittent type, where the *serpentaria* is very useful. It is also very excellent to check bilious Vomiting, and is moreover very powerful as you all

© Also the Pleurisy root, snails powder, &c.

know as a tonic and diaphoretic and is calculated to make a permanent and salutary impression on the system? But it often happens, that tho' the Section is forbidden, considerable difficulty of respiration and uneasiness about the chest will remain. This may be done away with leeches, or still better by cups after which we may resort with the greatest prospect of advantage to blister over the whole surface of the breast.---

Pneumonia notha.

The second head under which I am to notice the pulmonary inflammation is Pneumonia notha. Much difference of opinion has existed as to the treatment and nature of this disease. But I believe a great cause of this has been owing to their considering the disease in a too contracted manner. The fact is that there are two distinct diseases requiring opposite modes of treatment. I have on a former occasion noticed one of these under the head of Catarrhus notha and have no additional observations.

The second form of Pneumonia notha is now to be considered. In this the lungs are engorged with blood instead of mucus and other fluids as in Catarrhus notha. It may indeed be considered as a pulmonary apoplexy; in which the lungs are affected as the brain in genuine sanguineous apoplexy. It comes on very suddenly, so much so that we have no premonitory signs whatever. Sometimes however gradually. It usually occurs in debauched persons, occasionally in the young, robust and temperate. The symptoms are an impeded respiration, a dull, heavy pain about the thorax, a flushed and tumid countenance, a wild eye, great restlessness and anxiety, a total inability of changing posture. The patient cannot be on a horizontal posture, but must be continually propped up with pillows.

Examination Post mortem.

Proposed Amendment

After the views which I have given of the nature of the disease, there can be no hesitation as to the proper mode of treatment. Every circumstance demands prompt and copious ~~treatment~~ Blood-letting. And as much blood should be drawn as in apoplexy; the symptoms are so urgent that relief should be afforded before the orifice is closed; no matter what quantity of blood is drawn. In one case before the respiration was relieved I took 3℥x. which may seem to be a bold practice; but remember the imminent danger from the disease; and no doubt can remain of its propriety in all such critical cases we must risk a little for the patient. But there are cases which occasionally occur in which this practice cannot be followed with safety. The reason of this is plain.

The engorgement of the great viscera, especially the lungs, take so much blood out of the general circulation and as it were confines it, that a little lost by B. S. is very sensibly felt by the system. The accumulation is in the veins.

There is therefore present, a weak and feeble pulse, pale surface, great oppression. The blood drawn is of a dark colour with pie. It is distinguished from the other inflammatory affections of the chest, in the blood, the pulse, the dull oppressive pain. To illustrate this take an example: there are accumulated in the lungs say 5 or 6 lbs. of blood in a half stagnant state, in consequence of which so much is taken out of the general circulation, and therefore if a small quantity should be suddenly withdrawn it will produce great depression and be often attended with fatal consequences. Often 3℥j. on such occasions will prevent reaction of the system, and consequently be followed by death. It is prudent therefore to take away a small quantity at a time to suppress the flow of blood and watch the result. if the system react, then the orifice may be opened and the discharge renewed. If general bleeding should be improper, we must resort to

① Emetics.

other means, as topical bleeding by cups, &c. ①

As soon as a sufficient quantity of blood is taken, a large dose of Opium is to be given, which quiets irritation, and equalises the circulation. To confirm the cure and obviate the danger of a relapse a large Blister is to be applied. As auxiliaries in each form of Peripneumonia, notha, also we should not forget the use of inhalations of different vapours. Even the vapour of warm water is useful, but generally it will be beneficial to render it more stimulating by the addition of stimulating articles, as Ether, or the Balsam of Tolu; the manner of preparing this last is to put ℥j. of the Balsam in a cup and pour on it a quantity of boiling water, by which it is volatilised and inhaled with the vapour of the water. The inhalations from Serpentine and Rosin, of Hoffman's anodyne, of the vapours of Tar, &c. are also very excellent. This practice is the application of Tonics to the lungs, which arouse them from their torpor and enable them to perform their functions.

R. Opium — gr. ss.

Specac. — gr. ij.

Calomel — gr. v. m. This relieves difficulty of respiration, promotes expectoration, allays the cough, and prevents the relapse.

Cal: is the expectorant and when united with the above it is the best article when the depleting remedies are done with

② symptoms. Commences like a cold, more or less fever,

③ The weight of testimony I think is against its contagious nature,
but in practice we must act as though it was contagious.
Willis says it is an Epidemic.

Pertussis or Whooping Cough.

Nosologists have defined this to be a convulsive cough interrupted by a full and spasmodic inspiration, coming on by paroxysms and usually succeeded by vomiting. Dr. Cullen has accurately described the history of the disease, to whom I refer you.

As to the origin of the disease there can be but little doubt. It is manifest that it depends on a specific contagion, generally affecting persons but once in the life. This is not always the case, as it not infrequently appears the second time, I have 2 patients at present who have the whooping cough a second time at the expiration of many years. It usually appears in early life, but sometimes not till mature age. Consulting authorities as to the seat of the affection, you will find some locate it in the minute ramifications of the bronchia, also in the large branches; some in the Larynx and Pharynx. Others with great plausibility maintain that it arises primarily from the Menstrary Canal, particularly the Stomach, and is extended by sympathy to the lungs.

As to its Pathology some have considered it as a spasmodic disease, and others as highly inflammatory. The fact is that till lately we have been very imperfectly instructed in the nature of the disease. There were few dissections and little else but speculation and conjecture existed upon the subject. Lately however it has been investigated by a very able man who has added much to our knowledge of this subject. This is Dr. Watts one of the professors at Glasgow. He has pursued the proper plan of investigation; by attending accurately to the phenomena and confirming every thing by numerous dissections. I cannot detail the whole to you

but I will read a portion in which he has made a summary of the whole 91
do. — He observes that every thing proves that it in all cases is an inflam-
matory disease. that its chief seat is the mucous membrane of the larynx,
trachea, and Bronchia, and air cells: that in mild cases it will run
its course and finally cease without producing much disturbance of the
other functions. In some cases however it is so violent as to obstruct respira-
tion and on this manner prove fatal. Sometimes it proceeds to a more ad-
vanced stage, induces a free discharge of mucus and other fluids into
the air cells and bronchia by which these become obstructed and death
is the consequence. Sometimes the inflammation is extended to deeper
seated parts, to the substance of the lungs and proves fatal as pneumonia.
occasionally it ends in suppuration and in some instances in the formation
of tubercles, which afterwards proves fatal as pulmonary consumption.

Notwithstanding these new pathological views, I have but little now
to produce. As to the treatment, we have a sufficient number of medicines
in use, but they have hitherto been directed very empirically without any
precise views. We have now two leading indications to fulfill: the first
is to moderate the violence of the inflammation; and the second is to cor-
rect the habit of perverted or wrong associations, by which the symptoms
are continued long after the inflammation has ceased. Taught by the
evidence of the most respectable practitioners, and by our own knowl-
edge of the nature of the disease, we can hardly refuse our assent to the
direct depleting remedies. But these should be directed and regulated by
the soundest discretion. In a child, or adult of robust habit, of a florid
complexion, and having a febrile pulse, and pulmonary oppression, I would
not hesitate to bleed, and if necessary repeat it. This is interrupted cir-
culation and always affords considerable relief. Next to bleeding Emetics
are the best in children. These are established by the common consent of all

and are useful by determining to the surface of the body, And in the 2^d 193
place by interrupting or breaking the links of that chain of false association,
by which the disease is kept up. Here all acknowledge the superiority of
Ipecacuanha or of the sulphate of Zinc. As acting not only as emetics
but as possessing some peculiar virtues. Dr. Hahn is very fond of White vit-
riol in these cases, considering it as an antispasmodic, as well as an
emetic. To accomplish the purpose for which it was intended. It is of-
ten necessary that they should be repeated especially at the commence-
ment of the disease. I have often used them daily, and in some violent
cases even twice in 24 hours. During the interval between the emetics,
the same article should be exhibited in nauseating doses, or we may use the Anti-
moniac wine, the Ipecac wine, or the oymel of squills, or Cox's Hore Syrup.

All writers have noticed the constant tendency to Constipation in Pertussis.
This is the circumstance which led ~~which led~~ to the belief that the disease is
seated in the Alimentary canal. But apart from theory we are called upon to
remove the symptoms. This is generally done by the Castor oil, magnesia or Rhubarb, but
these medicines are not half so well calculated as the Calomel, which distinct from
its purgative property, possesses a more valuable power. Active evacuations should
be made with the Calomel, which breaks down the morbid associations, and ar-
rests the progress of the disease. In this place it is the practice to commence with
the mercurial purges. To this our physicians have been led as well by theo-
retical notions, as by the example of an empiric who was found to owe his
great success to the free use of mercurial cathartics. But whatever view
we may take there can be no doubt of the propriety of purging with calomel.

But while we thus resort to general remedies, we must not totally overlook
local applications. To relieve the congestion which is apt to occur, local
means are as useful as those which more generally affect the symptoms. For
this purpose Blisters are very advantageous, as also Leeches and Cups,

especially where there is much suffering from an engorgement or inflammation of 195
the lungs. Such are the remedies to fulfill the first indication; but it should
be remembered that this treatment is demanded in the more violent cases.

In a large majority nothing whatever is necessary, but in some all the above
means are absolutely necessary, and often we are completely baffled, even
when they are most judiciously employed.

As to the remedies to be employed in the 2nd stage of Pertussis, I am to make
a few observations. Among the fluctuations of practice there have been divers
sified to a great degree, and have hitherto been directed very empirically.
It will be impossible for me to notice them with any kind of order, but I shall
observe that they are all more suited to the decline of the disease and where the
inflammatory symptoms have subsided.

The various Narcotics & Antispasmodics. And among these
Opium has not been the least favoured. Whatever theory may have been ad-
opted all agree that it is very useful in palliating the symptoms. It was first
employed by Dr. Withering who proclaimed it was an article of great powers.
But on the contrary, I consider it merely palliative. It allays cough and calms
irritation, which is all that can be expected from it. It is now 50 years sin-
ce Dr. Sacken recommended the Cicuta as active in mitigating the cough &
other symptoms. Coming from such high authority it became much employed,
and by consulting the works of that day we shall find them replete with atten-
tions in favour of this article. But a more careful estimate of its virtues,
will prove that it has no power to cure, and very little to abate the symptoms of
the disease. On the same footing we must place the Henbane, the Nightshade
Digitalis, and various other narcotics. They calm irritation in some degree,
but to fulfill this indication they are decidedly inferior to Opium, and when
we have this in view we are wrong in preferring any other. Considering its use in
Asthma, a disease very similar to Pertussis, we might perhaps make an ex-
ception

② Propic acid.

from this general condemnation in favour of the Stramonium. This how-¹⁹⁷
ever must be considered as a mere conjecture of mine, which I have not any cases
by which I can maintain it. Considering the disease as purely spasmodic, it was
at one time only attacked by the antispasmodics. ② All of these have been tried but
the Castor, Musk and Asafetida have obtained the most reputation. Of the
former of these I know nothing from my own experience, but it is highly rec-
ommended by many writers. Cullen however thought it of no efficacy whatever,
and although I cannot go so far as this writer, yet I do not consider it as pos-
sessing any very valuable powers. Cullen however makes the same report as to
musk; but in this I cannot coincide with him, as judging from my own ob-
servations it is very useful, especially where there are any symptoms of Spasm.
In which cases I know of none more valuable. It is given in the form of Sulph,
the formula of which you will see in the dispensatories. But its odour is so
offensive to children that it is very often difficult to administer it. To obvi-
ate this inconvenience, it is often administered in the form of injection.

But whatever properties may belong to the natural musk, yet the artificial
is fully equal to it. This to the best of my recollection is made by pouring nitric
acid on amber; but for the particulars of the process I refer you to another
chair. Dr. Sewersee thinks the artificial musk not inferior to any other article.

Since the time of Boerhaave the artificial musk has been much employed,
and its powers well known in the various nervous affections. It is however
only lately that it has been introduced by Copeland as a remedy in pe-
tupis, and it became at his time very generally employed. Of no medicine
has a larger share of evidence been collected in its favour. For the last
8 or 10 years the journals have been full of cases of its efficacy. The high-
est authorities which has appeared in its favour is Dr. Baillie, who is a man
of great accuracy and caution, and who never inconsiderately advances an
opinion on any medical point. He states that after a fair trial he consid-
ers

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it as decidedly superior to every other article. My own experience is now, but the few experiments which I have made with it have been very favourable, and my medical friends who have employed it more largely speak the same language. That it is a powerful antispasmodic there can be no doubt. I have often employed it in the nervous affections, and am very well satisfied with the result. On the whole I strongly recommend it to you & think it deserves a very fair trial. It is given in the form of emulsion & in the same dose as the natural musk, that of gr. x. or xij. The Apafetida is the best antispasmodic.

Of the Resin Succini, one of the ingredients of the artificial musk, not a little has been said by many authors, particularly by Underwood who wrote on the diseases of Children. I have no knowledge of it from my own experience, its efficacy is not very great. I have employed it again and again, but never with any signal advantage; but several of the practitioners of this city report very differently of its virtues. The dose to a child a year old is grs. iv or v. Of all the antispasmodics, the one most employed & the most efficacious is the apafetida. This article has obtained great confidence among the practitioners of this city, and has almost superseded every other. Their practice is, that after evacuating the alimentary canal by emetics and the mercurial purges, and after moderating the violent symptoms by v. S. then to resort to the watery solution of apafetida, prepared by triturating ℥ij. in ℥viij. of water of which ℥ij. is the dose for a child of 18 months or two years old.

The Tonic Medicines have been much employed and of these the Peruvian Bark has been favourably spoken of by many writers; but none of them has carried their commendations so far as Dr. Cullen, who places it above all other remedies. As it displays such unrivaled powers in intermittents and other periodical diseases, we might suppose it to be useful

© Also the white vitriol recommended by Dr. Kuhn; from this it is supposed the Blue vitriol might be useful.

in partus. But I have no experience whatever in its efficacy, having employed it frequently with no advantage; in substance, it is very disagreeable and the watery infusion is too inert to make any salutary impression. But I give it to you on the authority of Dr. Cullen, who was a great sceptick as to the powers of medicines, and I believe that whenever he praises any article you may place implicit confidence in it. Entertaining the same notions as concerning the bark, Arsenic has been introduced by several physicians particularly Dr. Simmons and Dr. Ferriar of Manchester. They give to a child one or two years old gr. j. or ij of Fowler's solution. I have very little experience with it; I have tried one or two cases, but with no success. In the rage for new remedies, the Sacch. Satur. has been employed. The credit of this is claimed by Dr. Reese, but I find that Savary after detailing various remedies observes that also the Sacch. Saturni should be employed in doses of gr. ij. or iij . After the publication of Dr. Reese it was much employed in Europe. But I find very little notice taken of it in the last periodical journals. It was much used by the late Dr. Rush, who spoke favourably of it; so also by Dr. Barton, I have frequently tried it but cannot coincide with the above respectable authorities. The last medicine of this class which I shall mention, is the Nit. Argenti. This was introduced and recommended 3 or 4 years ago by Dr. Jones, and has been favourably noticed, in the periodical publications; but I have no experience of its virtues. ⑥

I come now to a different class of remedies viz. the Alkalies. The credit of first introducing these is given to Mr. Pearson, and the success in England with them was so great that I copied the prescription which I brought over to this country. It is as follows. $\text{Rp. Carbon. soda. gr. iij}$.

$\text{Vin. Ipecac. qtu. v.}$

$\text{Lauds. --- qtu. j.}$

$\text{Ag. --- --- 3j. m.}$

this is a dose for a child of 5 years old, to be repeated 3 or 4 times a day. 203
At the same time that this was introduced into regular practice, the vegetable alkali was put forth and soon superseded every other medicine. The following is the formula generally used

Rx Carb. Potash - ℥j

Cochineal — gr. x.

Aq. — — — ℥iv. m. Sugar may be added

to make it agreeable, Dose is ℥j. 5 or 6 times to a child of one year old.

My experience in the Alkalies as remedies for Hooping Coughs has now been so great, that I am able to speak with a good deal of confidence concerning them. I am of opinion that they are in reality entitled to great attention, and that they make a very salutary impression on the disease. At this point many practitioners have also given very favourable testimony, and also the popular voice has decided in a remarkable degree. But to prove efficacious they should be administered in a much larger dose than a boy directed. In that small quantity they do little good, and at one time I almost abandoned them; and it was not till I doubled the dose, that I regained my confidence in them. As to the comparative merits of the two Alk. very little is determined. Lately I have employed the potash, but I am not aware that there are any solid grounds for this preference. What is the method by which they operate is not very intelligible. Some have said that they correct the acids and are accumulated in the alimentary canal. That these acid irritating articles in the bowels will ~~not~~ affect the lungs sympathetically and excite a cough, I consider to be as true as any other pathological question, and therefore there is nothing improbable that such may be its "modus operandi". But I do not see the necessity of resorting to these chemical solutions. The alkalies produce a great effect on the system through the medium

of the stomach.

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I have already noticed the great efficacy which the addition of a small portion of potash imparts to the Peruvian bark and Sassafras. As in those obstinate intermittents, so also in Pertussis, they act by producing a powerful impression on the system and thus intercepting or breaking the chain of morbid association which keeps up the disease. I have said that Mr. Pearson received the credit of introducing this practice. But I find that it has been employed in Germany from time immemorial. Leaving the consideration of the Alkalies, I shall notice another medicine, which has obtained a high degree of reputation.

I mean the Sincture of Cantharides. this has been for a long time employed in the different parts of England; But it is only within 20 years that the medical attention was directed to it as a useful article in Pertussis by Dr. Lettsome. He gave it at first in a few drops, but to obtain its full effects, it should be continued till a slight strangury is produced; by keeping it up for 5 or 6 days a cure will be effected, where this appears the disease becomes confirmed. It has not been much used in this city, and we therefore know little about its efficacy.

I have now gone through the catalogue of medicines in pertussis, many of these are little entitled to our attention; But it is often necessary to point out the evils as well as the goods; as it will be of great relief to a young man to know the comparative medicines which are pressed upon you by authorities almost equally respectable.

In reviewing what has been said, my practice will be sufficiently evident. But for fear this might not be the case, I will recapitulate the method which I pursue in this disease. Believing in the first stage to be an highly inflammatory disease, I resort to the means

④ If in the country bring him to the city. Emigrations of Tar.

for fulfilling this indication. These are V-S. and mercurial purges, 207
when there is much phlegm or mucus, I exhibit an Emetic which is to be
often repeated; in the interval the same article is to be administered in
nauseating doses, when the child is much oppressed or where there is much
inflammation I do not neglect the application of a Blister, or if ne-
cessary leeches or cups. As palliative of the cough opiates may be used.

After the crisis is over or the inflammation subdued, nothing is so
useful as the alkalis, or the water of aloe & tida; both of these are at-
tended with great benefit; but one may be selected according to cir-
cumstances, sometimes they are useful being employed alternately.

But while we pursue this remedial treatment other considerations
should not be overlooked. It is a popular opinion that great advantage
is gained by exposure to fresh air. No doubt when the weather is warm
and mild, this may be the case; but in cold weather the patient should
be kept within doors, and even in a warm room of equable temperature.

Cold air especially in the early stages never fails to aggravate all the
symptoms, and sometimes induces Pneumonic inflammation. Remem-
ber this direction as it is a universal practice to expose the patient
to cold and fresh air, and there can be no point on which a judi-
cious practitioner should be more decided than in preventing this
exposure. An equable temperature is useful in all diseases of the
chest, and in none more than pertussis. After the crisis however free air
is very important. Of all remedies a change of air from the city to the
country, or to the sea shore is the most efficacious. (7) Where this can-
not be obtained riding or even walking will prove useful.

Upon the whole I conclude by advising a particular attention to this
disease; and have been thus particular, as you will find it one of
the most perplexing which you will meet with, because it is true

that pertussis and cholera infantum produce a greater expenditure of lives, and make greater incursions on domestic happiness than all the infantile diseases. 209

Asthma.

As connected with the former diseases we are next to notice Asthma. This is a spasmodic affection of the lungs, returning in paroxysms. These recur very frequently at intervals, but do not always observe regular periodical returns. Cases are recorded in which the attacks have come on daily, monthly, annually, or even for a more distant period, appearing but once or twice in the course of a long life.

The Causes are such as act directly on the lungs, or indirectly through the medium of the system. Of the first are acrid matters taken into the lungs, as the vapour of lead, of arsenic, of mercury, or other minerals; fungent odours of various kinds, oppressive perfumes and fetid smells; indeed by a great variety of means, and particularly Specac. It is a curious fact that Specac. generally is highly useful in Asthma; yet in some persons the smell of it will generally bring on a paroxysm of the disease. I have known a medical student, who could not weigh out a single dose of this medicine, without being attacked with the usual disagreeable symptoms of this Complaint.

Lately I have seen a similar case noticed in the Philosophical Transactions.

To this we may add the insupportable gases, particularly the carbonic acid gas. The states of the atmosphere as regards its sensible or insensible properties: as depending on heat, cold, moisture, or acidity; or arising from certain occult peculiarities of the atmosphere. Thus the air of the suburbs of the city is more oppressive than that prevailing in the popular and crowded parts.

Of Climate.

It is a well known fact, that the climate of a country has a great influence on the health and happiness of its inhabitants. The climate of a country is determined by the position of the sun, the direction of the winds, the quantity of rain, and the nature of the soil. The climate of a country is also influenced by the height of the mountains, the extent of the rivers, and the nature of the vegetation. The climate of a country is also influenced by the nature of the rocks, the nature of the water, and the nature of the air. The climate of a country is also influenced by the nature of the food, the nature of the clothing, and the nature of the shelter. The climate of a country is also influenced by the nature of the government, the nature of the laws, and the nature of the customs. The climate of a country is also influenced by the nature of the people, the nature of the language, and the nature of the religion. The climate of a country is also influenced by the nature of the history, the nature of the literature, and the nature of the art. The climate of a country is also influenced by the nature of the science, the nature of the philosophy, and the nature of the religion. The climate of a country is also influenced by the nature of the music, the nature of the dance, and the nature of the drama. The climate of a country is also influenced by the nature of the poetry, the nature of the prose, and the nature of the history. The climate of a country is also influenced by the nature of the painting, the nature of the sculpture, and the nature of the architecture. The climate of a country is also influenced by the nature of the music, the nature of the dance, and the nature of the drama. The climate of a country is also influenced by the nature of the poetry, the nature of the prose, and the nature of the history. The climate of a country is also influenced by the nature of the painting, the nature of the sculpture, and the nature of the architecture.

Cities differ also in this respect, as Baltimore and Philadelphia. 211

It is said that the air of Baltimore peculiarly predisposes to an attack, Philadelphia quite otherwise. And I know that persons have come from Baltimore to Philad^a merely with a view of being benefitted by the change of air. I know one or two families who have escaped by moving into the heart of the city. These are the causes which act primarily on the Lungs: but there are some others which operate secondarily thro' the medium of the system. A wrong impression on the alimentary canal from worms, indigestible food, inanition, or the excess of eating or drinking. Constipation of the bowels, also a suppression of any accustomed evacuation from the rectum, ~~sc.~~ the reception of eruptions, the metastasis of disease, and especially gout, the indulgence of vehement passions. But most of these act as exciting causes operating on a predisposition, acquired by inheritance; or from peculiarity in the formation of the chest. However induced a paroxysm usually comes on during the night after the first sleep, with a sense of tightness or constriction across the breast; there is universally a sensation in the Lungs as if there was a stopping of the respiration. There is no cough often or if there be, it is accompanied by expectoration; aggravated by motion, the countenance livid.

The patient cannot remain in a horizontal position, but flies for relief to an open window, for fresh air. This difficulty in respiration increases, and at times is accompanied by a wheezing noise. The voice is weak, the cough when present becomes painful. This state of things continues for several hours; a perspiration then breaks out which becomes profuse, the respiration is less laborious, the cough is free, and a secretion of mucus into the bronchia occurs. The other uneasy symptoms gradually abate. But greater or less difficulty in respiration, tightness across the breast and uneasiness

remain thro' the day and there are relapses for several succeeding days 213
and nights. After a few days the symptoms cease and the patient returns
to his ordinary state. The pulse generally is quick and small, sometimes
it is quite natural. The urine at the commencement is pale, at the re-
mission it is high coloured and deposits a luteitious sediment. The
face is usually flushed and turgid, sometimes pale and constricted.

The disease with which it is generally confounded is Angina Pecto-
ris. ~~cardiac affection of the heart Hydrothorax etc~~

Asthma is generally an hereditary disease, seldom appearing before
the age of puberty. It chiefly attacks the male sex; and the paroxysms
usually appear during hot weather, but this is not uniformly the case.

The paroxysm is often preceded by languor, lassitude, drowsiness, a sense
of weight and pain about the chest and by many of the symptoms of dyspep-
sia.

As regards its Pathology very little is made out. Boerhaave and most
of the modern writers, attribute it to a spasmodic action of the muscular
fibres of the Bronchia, which interrupts and disturbs respiration. A late wri-
ter, Dr B. endeavours to overthrow this doctrine, tho' I cannot say with
much success. He attributes the proximate cause to an irritation of the
air cells of the lungs, produced by aerial acrimony, or by an effusion of
serum. Obviously in this last case mistaking the effect for the cause.
In spasmodic asthma, dyspnoea occurs before the secretion of mu-
cus or serum.

Dissections has not thrown much light on the subject. Generally
in recent cases the lungs are found perfectly healthy; in old protracted
asthma, Morgagni states there is considerable organic derangement,
especially an effusion of serum, as in hydrothorax. On the whole
I can readily believe that the attending spasm and effusion of serum,

mucus, &c. are mere effects of the disease, but we must admit that 2/3 the spasm is induced secondarily from various sources of irritation, generally from the stomach and bowels.

The usual division of asthma is into Spasmodic and Humoral. The first generally appears in the early stage, the second in the advanced stages of life. Whether this is sufficiently uniform to draw a distinction I know not. But I do know, that it is ^{not} to be observed in practice. Each form I believe demands the same general remedies, adapted to the circumstances of the individual case. I think the division would be better into Idiopathic and ~~Symptomatic~~ Sympathetic, as unquestionably it appears in both forms. But whatever pathological views may be taken or adopted, the treatment is such as is proper during the paroxysm, and such as is proper to eradicate it or to prevent its recurrence. No practitioners viewing the prominent symptoms would hesitate as to the propriety of V.S. which is apparently called for by interrupted circulation through the lungs, the tumid countenance, the panting respiration, &c. &c. But still it is universally confessed that it is an ambiguous remedy, and by some it is utterly condemned. Those who use it confess that the advantages derived from it are not so great as might be expected. My settled conviction is, that tho' our hopes may not be fully realized, yet that in violent cases it is useful, and even sometimes indispensable. It should be employed in plethoric cases in which it abates the vehemence of the attack, as well as shortens its duration; and prevents those organic derangements, I above mentioned which terminate in hydropthorax and pulmonary consumption.

on determining on the propriety of this measure, it will not do to confine ourselves to the indications of the pulse, which in many instances is slightly affected, but to take a view of the whole circumstances of the case,

① especially in children

particularly those which call for this remedy. But after all there are 217
cases in which it is inadmissible, or where it does not promise any u-
tility, there is present considerable congestion and oppression of the lungs,
precisely in these cases cups and leeches to the back are indicated,
and may be beneficially employed. Of the efficacy of Emetics there
is infinitely less difference of opinion than either of the above forms
of evacuation. But it is objected that they are hazardous and
of no use. These objections I believe are frivolous, and so far am
I from being influenced by them, that I habitually employ them, and
often with marked success. As to the Spasmodic or humoral asthma,
I believe there is no difference, they are equally affected in either
form, and in almost every case relieve the patient, and if timely
used may prevent the recurrence of the paroxysm. Confessedly the
Ipecac^e is superior to all other emetics. As far as I know it was
originally introduced by Aken-side, the poet and physician, dur-
ing the paroxysm he gave ℞. of the ipecac^e with immediate re-
lief, and during the interval he gave from gr. iij to v. every morning
to excite nausea, to effect a permanent cure. Whether vomiting
was induced by this or not it proved equally beneficial.

It is right for me to mention that Cullen and most other writers differ as to the propriety
of this practice, in both species of asthma, that altho Ipecac^e is beneficial in the
humoral asthma, it is of no avail in the Spasmodic and sometimes eminently
mischievous. My experience leads me to an opposite conclusion, and I have found
it as serviceable in the one as the other. Do we not on other occasions resort to it,
to relieve spasm, as in Trachitis, and why we should not in asthma, can
not be shown as far as my experience goes. You may resort to it in the one
case as safely as the other. By some the squills has been greatly preferred &
is not unlikely well suited to it, especially in the cases of old people.

Ipecac & squills combined

{ Robelia I have not much experience
 { Physallaea decandra The juice a
 { Duncture recommended by Dr. Physic

① Dover powder

When the liver is to be emulged or unloaded, much also is said to be gained by its combination with Ipecac^{ca} of this I know nothing. White vitriol by Dr. Keuhn. In nauseating doses some prefer it to vomiting; the comparative utility of either plan is undetermined. To me it is manifest that the one or the other is to be employed according to the stage or circumstances of the case. To break down the attack of the paroxysm vomiting is very beneficial. As to the expectorant effects, small doses answer the best and are very useful; commonly Ipecac^{ca} is exceedingly beneficial. But in old protracted cases stimulating articles are more effectual, as the squills ^{or} pieces of Garlic, or onions, Gum Ammoniac. volatile alk: Seneka & nake root &c, the best preparation is a combination of the Gum Ammoniac and Nitric acid in the following formula. R. Lac Ammoniac. ʒviij. and gradually pour on it Nitric acid - ʒij. at the same stirring. It in a mortar sometimes Paregoric - ʒss or ʒi. may be added. The dose is

As might be expected from the effect of purgatives in the pulmonary affections generally, no confidence is placed in them in Asthma, but the bowels should be evacuated, and kept in a soluble state, Calomel here is the proper article. From the commonly received notions of the nature of this disease opiates would be useful. They have accordingly been liberally employed with opposite results. Dr. B states that they are uniformly healing, many practitioners agree with him, but the opposers of this opinion are very respectable. I believe that opiates are misapplied both at the commencement, and during the height of the paroxysm: but that they are proper when the paroxysm is broken down by active means. Here they may be employed with great advantage, as I am persuaded, but we have not been content with this article alone, every other narcotic and antispasmodic, have been successively tried alone or variously combined.

(*Cicuta Belladonna* &c &c),

I believe the whole are of inferior
pretensions, paragon very serviceable

(*Magnetism Electricity and Galvanism*)
particularly the latter,

What I have said of opium will apply to the whole of them, except 221 that they are very inferior to it. The best preparation of it is the Elixir parégoric. Also Musk, Ether, Hoffmann's anodyne, &c. A Blisters to the chest is one of the best as a palliative, Blisters to the extremities

It is ~~weight~~ however in me to except one, which is employed in another mode. This is the stramonium which has obtained much notoriety as a palliative; it is smoked. The root of the plant is washed, dried, and then bruised, after which it can be easily smoked by means of a pipe as tobacco. When thus employed it affords occasionally much relief: of this I can have no doubt, as I have seen its beneficial effects and its efficacy is attested by some of the best European and American practitioners. But it will often fail, and perhaps it is only adapted to particular cases, which have not been accurately designated. It appears to be suited to the dry and spasmodic form of the disease. After all whether it is superior to the tobacco, is doubtful. Often I have known relief afforded by the smoking of a cigar, and here both are on the same footing, each sometimes failing and sometimes moderating the symptoms. But I have never known the violent effects produced by the stramonium, which some of its opposers in Europe have alledged. From the nature of the disease, no one remedy promising more than a Blisters. But experience does not realize these anticipations, and there are not wanting some who utterly condemn them. I would not report so favourably of them, yet I have been so frequently disappointed, that I have no confidence in them. It is said that much more is obtained by blisters when applied to the extremities, in which cases they are said to act as a charm. As these are so doubtful in their operation, others have resorted to the plaster of Surt. Emetic, which is said to be so useful in pulmonary diseases, particularly the Angina Pectoris.

① send and gone to the Point of all
the capulets,

where it has a tendency to observe
the law of periodicity, quinine, Arsenic
sulphate of zinc, &c.

During a paroxysm relief is said to be obtained by a draught of cold water, hot water in some instances, strong Coffee without cream or sugar, &c. Cold air is also effectual, and sometimes by sitting near the fire with the feet to it. Be not surprised that such opposite remedies should be employed, and be so effectual; this is not the only instance in which opposing remedies are employed with success; but in many other cases, we have to lay aside all our speculative notions, and trust to experience alone.

To relieve the lungs, inhalations of vapours have been very advantageous, even the steam of water is useful. At one period during the reign of Pneumatics it was the fashion to inhale various gases during the paroxysm of Consisting Beddoes, and Thompson, and others on these, the effects were very extraordinary. The inhalation of oxygen especially was altogether miraculous in its action; by it the livid colour of the countenance, the difficult respiration, &c. ceased. All the functions speedily were exercised with freedom and without any uneasiness. But subsequent trials did not confirm these exaggerated accounts. ①

We now come to the means of fulfilling the second indication in asthma, as to those which will prevent the recurrence of the paroxysms and ~~eradicate~~ ^{eradicate} the disease. As it commonly appears the most effectual means are the various tonics differently exhibited as was commonly remarked. The alimentary canal is commonly disordered and in all this kind, the management is precisely the same as in dyspepsia, most of the remedies for indigestion being equally effectual in asthma, particularly the Chalybeates. Long after the termination of a paroxysm a certain degree of dyspnoea, cough, tightness, &c. will remain indicating various conditions of the lungs produced by an effusion of serum, or some organic injury. Here the diuretic medicines are of infinite service, as the squills, the digitalis,

①

constipation should be carefully
guarded against

Colicium, the Senega, &c. either alone or in combination with calomel. 223
not a little advantage is gained by the habitual use of garlic, as is attested
by many practitioners. And I am persuaded that the best article in such
cases is Sar given in the form of pills. These two are domestic remedies, much
employed together, and have obtained much reputation, so these I will only add
one other, ~~and~~ the Myrrh. This is beneficial by itself, but its influence is
increased by uniting it as is usually done, with the bark or other vegetable
bitter. In this way much advantage is unquestionably gained. As the
Stomach is much affected commonly, the Diet should be strictly at-
tended to, even where there is no gastric affection. Some restriction is always
necessary. Every trifling in eating and drinking should be strictly guarded a-
gainst. The patient should be protected against the vicissitudes of the weather,
by warm clothing, particularly by wearing flannel next the skin. It is
universally admitted that exercise carried to the length of labour, is high-
ly beneficial. Cures have frequently been accomplished by long journeys, &
also by the excessive hardships of a military life, to this point we have the
testimony of almost all the writers on this disease. During the late war
two or three of my friends who were asthmatic, were exposed in an encamp-
ment during several months to many hardships, but were in consequence
of this completely cured, having had no return of their paroxysms. I know
of three such cases.

All these resources failing, a change of residence should be tried. The exact
situation to be determined by the experience of the patient himself. As
sometimes a dry, cool, mountainous situation is necessary, while others find
themselves more comfortable in low, moist places. Sometimes a sea resi-
dence is useful, in others it immediately brings on a paroxysm.

Many other names have been applied
as *Sterna Cardia* and *Sterna*
an attack is preceded by considerable
oppression of the *præcordium*,

The paroxysm continues from $\frac{1}{2}$ hour
to 1 hour, the period between the paroxysms
becoming shorter,

Diagnosis. Asthma comes on
in the night, relieved by exposure
to cold the latter being characterise
by pain in the pectoral and deltoid
muscles,

Angina Pectoris.

227.

This is a new disease, being first described by Heberdon in the year 1768. It is of rare occurrence, and some have doubted whether it had any real existence. As described it is caused by any exertion, such as walking, ascending a flight of stairs; suddenly coming on with a painful constriction at the lower end of the sternum, extending to each arm as far as the insertion of the deltoid muscles and successively extending to the elbows and wrists, and also to the inferior extremities; as soon as the patient stops walking, the symptoms vanish. When the disease has continued for a long time and is fully confirmed, this remission cannot be so easily procured. Now it sometimes comes on while the patient is at rest in bed, or it may be excited by the most trivial incidents, as coughing, speaking, straining at stool, by any mental affecting, the most common cause is ascending rapidly a pair of stairs, or climbing to any eminence, which produces some disturbance in the respiration, hence also it is more likely to occur after eating heartily. To the symptoms already enumerated, may be added great anxiety, palpitation of the heart, laborious respiration, a sense of suffocation, and other distressing affections, indicating instant death.

As a general rule it attacks persons at the middle of life, men more than women, and men who are of a robust, corpulent habit, with a short neck, who are indolent and often gouty; but it attacks persons of quite a different character, as the spare and thin habit, valetudinarian, &c.

Appearances on dissection. In some cases not the slightest morbid appearance is present
suffering of the heart, orification of the valves &c.

As to its Pathology our knowledge is not satisfactory. The earliest writers on it, consider it as a spasmodic complaint; tho' it does not

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appear to be understood, it is probable that it is the case, from the gen-229
ual complexion of the disease, from the causes, symptoms, treatment, and from
its close analogy to spasmodic complaints, particularly to asthma.

This is so much the case that Dr. Darwin considered them to be the same na-
ture, and termed this asthma dolorificans. But within the last few
years a different view has been taken of it by Dr. Parry, who considers it
as a case of syncope, and has named it syncope Anginosa. This he at-
tributes to an ossification of the coronary vessels of the heart, but it is ob-
jected, that there is no evident connection between the alleged cause &
the effect. That an ossification of the coronary vessels would produce great
disturbance in the circulation there can be no doubt. But there is no rea-
son whatever to suspect, that it would be productive of all the distressing &
violent symptoms of Angina Pectoris. The idea is fully confuted by the fact,
that dissections have in a great majority, exhibited no morbid appear-
ances, and that even where ossification did exist, the complaint was
indistinctly marked.

A writer of our own country has attributed the disease to a pleth-
ora, and a disproportion in the different parts of the circulation, so that
blood is accumulated in the heart, and large vessels. This I conceive to
be no better founded than the other. But my time will not permit me to en-
ter into any full examination of the arguments in its favour. It will be
sufficient for my present purpose to observe, that even allowing the full-
ness & irregularity of the vessels, the foundation of authors reasoning to ex-
ist (which I am not disposed to do) I conceive that it is taking the ef-
fect for the cause. Do we not know that this fulness may exist without
one symptom of the disease. If the hypothesis were correct then a pleurisy
should arise so often as this fulness and irregularity in the vessels take
place. Notwithstanding the number of dissections which have been made,

appears to be an abstract of a paper read at a meeting of the
 and Commission of the Bureau, from the Bureau, Commission, and
 the same analogy to be made by the Commission, but I do not
 think it is in the case that the Bureau Commission is the same
 true, and turned the entire Commission. But I do not think
 from a different view has been taken of it by the Bureau, and I do not
 as a Court of the Bureau, and has been taken at the Bureau, and I do not
 tribute to an official action of the Bureau, and I do not think
 failed, that there is an essential distinction between the action of the
 the effect. That an official action of the Bureau, and I do not think
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 for instance to suspect that it would be possible to find the distinction
 without a distinction of the Bureau, and I do not think that the Bureau
 that distinction is a great matter, and I do not think that the Bureau
 away, and that even when the distinction is made, the Commission is
 in a distinct manner.

A letter of our own Commission has attributed the Bureau to a
 may, and is a distinction in the Commission, and I do not think
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 is a better position than the Bureau, and I do not think that the Bureau
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no light has been shed on it; owing probably to the variety of forms in which the disease appears. Sometimes there is no morbid appearance, generally the heart is so much diseased; it is slightly enlarged & some ossification of its vessels, effusion into the pericardium, &c. in some cases there is an effusion of water into the chest, sometimes adhesions of the lungs to the pleura. Scirrhus of the liver, stomach, &c. In one case I have seen all the symptoms arise from a scirrhus of the pylorus. My impression is that this disease has its seat primarily in the stomach; that it is sympathetically extended to the lungs & many organs, and that it is of a gouty nature. To this opinion I am led by a consideration of its causes, mode of attack, symptoms, cure, by the appearances on dissection, and by the strong fact, that all the cases of Angina pectoris which I have seen turned out to be gout in the stomach. My time will not allow me to vindicate this opinion by advancing the various arguments and facts in its favour. And perhaps it is not necessary, as no new plan of treatment is suggested by it. But I will detail one or two of the cases above alluded to. A gentleman from 25 to 30 years of age was supposed by his physicians to be the victim of Angina pectoris; all the symptoms were strongly marked, after the death of his physician, Dr. Rush, I was called in during an attack of his disease, believing it to be gout I treated it accordingly, gave him the *col. alk.* and applied *sinapisms* to his extremities, in 2 or 3 hours he had a confirmed attack of *Podagra*. The symptoms of Angina pectoris disappearing, it remained in the feet for 3 or 4 hours longer, when it immediately turned to the heart, and proved fatal. An eminent Lawyer at present living in this city, many years ago had a confirmed case of Angina pectoris, as it was termed by two eminent physicians Hahn and Wistar, who attended him. In two or three months after the first

attack, I saw him, he had the pain in the sternum extending to the 293
deltoid muscle. I treated it as gout and in 24 hours it fastened on the
extremities. There is a lady who a long time supposed had the angina pec-
toris. This was the opinion of the late Drs. Kehn and Wistar, who once attended her.
For the last two or three weeks she has been confined to her room with the usual symp-
toms, particularly having the pain along the arm; she took some weak soup, but had
added plenty of Cayenne pepper; in a few hours she had an attack of podagra,
the pain in the arms breast, ~~and~~ &c. disappearing. Last winter I visited a
lawyer from the country, who had Angina pectoris, under the care of Dr.
Phyrick and myself; we gave him Vol: alk: and applied singlism to his
wrists, which relieved his pains in the breast, and the medicine being omitted
it after wards seized his heart again and he died.

On a former occasion I mentioned to you, that Hysteria was attended
by some of the distressing symptoms, and on the authority of Dr. French: I al-
lude to the constriction of the wrists as being sometimes an attendant symp-
tom. In the treatment of this disease, the first thing to be considered is,
what should be done during the paroxysm, and in the second place, what is
proper during the interval, in reference to a radical cure. As soon as the
attack commences, a state of complete rest is to be enjoined when the symp-
toms are urgent, and the pellice vigorous, v. s. is to be resorted to and to a
large amount, ℥xx . or ℥xxx . are to be taken at once, and it is often necessary
to repeat the bleeding to the same extent in a short time. The fact is the case
admits of no delay in many instances, and as in apoplexy, &c. a feeble and
timid practical will prove fatal. My rule is to urge the lancet untill
relief is afforded; at least as far as I can with safety to the patient;
if to no purpose cups may be applied to the back and a blister to the
breast, then a purge of Calomel and Salap. is to be given, or an infusion
of senna; you perceive that this practice differs wholly from that recom-
mended

by European writers. By them an entirely opposite course is pursued; 235
considering the disease as spasmodic, they invariably resort to a class
of remedies termed antispasmodics, to wine, opium, ether, musk, Cam-
phor, &c. and on such they exclusively rely. No doubt in the incipient stages
or where the violence is subdued by depletion all of these will answer very
well. This I have often done with great advantage. At the very commence-
ment a dose of Laudanum or ether will afford great relief, and also
the musk pills. They are also equally effectual after depletion. But
the point I contend for is, that while the paroxysm is, the directly deple-
ting remedies are more effectual than any other. To invite the disease to
the extremities, is not to be lost sight of, stimulating pediluvium, sin-
apisms, &c.

During the intervals of the paroxysms the proper treatment may be con-
sidered under the two divisions of local and general remedies, first
of the Local means. Every person must be struck with the im-
portance of counter irritation to moderate and prevent the paroxysms of the
disease. Formerly it was customary to apply a perpetual blister to the chest.
Of late years the peculiar irritation produced by the Tart. Emetic. has been
considered preferable, and has been almost universally substituted. It is
applied either in the form of a plaster or the ointment; a dose cloth wet with
a solution of it are kept on the sternum. It induces a peculiar pustular
eruption of a poisonous nature and very difficult to heal, and hence
has been regarded as well suited to keep up a constant irritation. Whether
it is superior to the blister I do not know; but many cases in which cures
~~which~~ have been accomplished by it are recorded in the English peri-
odical journals. Not less is said of issues in the thighs, placed usually
in the inside, 8 or 10 cases are recorded of their effecting cures, and if
we can receive the testimony of such distinguished characters as

The magnet suggested by
Seamster,

① These inferior to the magnetic
preparations,

Meigs ^{and} ~~Bride~~ and Darwin, there can be but little doubt of their efficacy. We may substitute in some cases permanent vesication at the wrists, which in the opinion of Dr. Rush are superior to issues in all diseases. Of the General Remedies Tonics are much relied on, from their importance in nervous and spasmodic affections. The Bark ~~of the~~ ^{of the} ~~valerian~~ was formerly greatly preferred, but this is not the case at present, more confidence is placed in the mineral tonics, particularly the preparations of Copper. White vitriol, and Nitrate of Silver, by which many cures are said to be accomplished by each of these remedies. Two remarkable instances are recorded in the Medical and Philosophical Journal of London. Dr. Rush relates a case successfully treated by the white vitriol. No one of these remedies are ever resorted to by me. Believing the pathology which I have detailed to be correct, I have always acted on it; and directed my remedies accordingly. Conformably to this plan, I direct that all the usual exciting causes should be avoided, and then treat the disease on those principles, and by those remedies which are suited to an atonic or disordered state of the stomach in order to do away the predisposition to spasm. Hence it is essentially necessary, necessary that the diet should be light and digestible. Constipation of the stomach is to be carefully attended to, walking always proves injurious; exercise in a carriage or on horseback is useful. As respects medicines there are to be employed which are applicable to dyspepsia; and they answer very well. Sometimes the mineral tonics above mentioned may be useful, but I have never known a case of this kind as a preventative. Plethora is to be guarded against by occasional V. S. by low diet. by purging, &c.

Thus I have treated angina pectoris and so successfully that I may with some confidence recommend the practice to you. Whether the Cases I have seen are genuine examples of the disease I cannot determine,

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but they have been considered so, by the highest authorities in this city. 239
We cannot however always effect a cure, when the disease has lasted for
some time. There is generally such organic derangement as to render it
altogether intractable.

Phthisis Pulmonalis.

To conclude my account of the diseases of the pulmonary organs, it only
remains for me to make some observations on pulmonary Consumption. This is
an undertaking promising very little satisfaction. Confessedly there is no
disease which is enveloped in greater obscurity, or in which the power
of our art is less certainly & advantageously exercised. It would ap-
pear that this was owing to the inherent difficulties of the case and also
in a great measure to ourselves. An ulcer on the lungs which is con-
siderably the worst form of the disease, is intractable for several causes.

First. From the nature of the structure of the lungs which is cellular.
This is the case in all instances in which ulcers exist in cellular parts;
they being uniformly more difficult of cure, than when occurring in other
parts. 2nd. The curative process is also disturbed by the movement of
the lungs in respiration. The alternate collapsing and enlargement of
these organs tearing the ulcer wider, and at all events interrupting the
healing process, by disturbing that rest which is so essential for this purpose.
3rd The constant exposure of the ulcer to the air inhaled, which in all

Robert B. Williams

instances proves injurious. Divide an ulcer in any part and expose it 241
to the air, the healing will be greatly retarded. Notwithstanding these impe-
diments we do know, that wounds induced by various means, do heal
readily. The evidence to this point is great and satisfactory, and is af-
forded chiefly by those surgeons who are attached to armies. Hence it
appears that there is in the constitution sufficient power to heal an ulcer of
the lungs. The difficulty therefore in consumption ~~therefore~~ must arise from
an altered condition of the lungs themselves and this difficulty will be
proportioned to the degree in which it is altered. But it appears to me that fail-
ure of our efforts is greatly to be attributed to the indistinct notions, and the
erroneous opinions which we have adopted of this complaint, for which
we are in some measure responsible. It has been our misfortune to have
the great variety of forms in which this disease appears, clasped under one
general head, and the same practice dictated to each. My deliberate conviction
is, that from this sweeping method of generalization, mischief has originated
not only here, but in many other instances. Our first business is then to exam-
ine it, as it presents itself in its more usual forms. Pthisis signifies a
destruction or wasting; and when applied to pulmonary affections, de-
notes an ulcerated condition of the lungs: But unquestionably the dis-
ease has appeared, has run its course, and has terminated fatally,
without any lesion of these organs whatever. All writers have consid-
ered ulceration an uniform occurrence and as an essential ingredi-
ent in the definition. Cullen has defined it to be emaciation and
debility of body, hectic fever, cough and expectoration of pus.
Here it is evident he insinuates the existence of an ulcer, and he af-
terwards does this more clearly. Dr. Baillie a late French writer has
laid it down that every pulmonary affection, ^{which} when left to itself pro-
duces disorganization of the lungs, succeeded by ulceration and

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death, ought to be considered as Phthisis Pulmonalis. I do not intend to 243
enter on any formal criticism of either of these definitions, the latter I con-
sider exceptionable in many respects, especially as excluding all those
diseases where there is no actual disorganization of the lungs, and al-
so, as it excludes all the diseases where there is any organic derange-
ment in the lungs, however different they in reality maybe; it is very
difficult if not impossible to define this disease; nor can we mistake
it so unequivocal are its symptoms. But if any one should attempt
to include all its various forms under one definition, he will be exce-
dingly perplexed and embarrassed. To obtain as much perspicuity
as possible, I will enter into a detail of the symptoms, and describe them
under several heads. The old writers had their divisions obscured by
being very numerous. Portak had fourteen species, Sauvage made
no less than twenty; others carried it still further. As the only reason
why any division should be made, is for purposes of practical utility;
I shall treat of the disease under a much smaller number of heads.

First then I will notice Subercular Consumption, this is
genuine Consumption. Before the symptoms of this form of the disease
are described, I shall say a few words on the nature and appearance
of Tubercles, which are supposed to be the cause of it, their seat and the
cause of their production. Tubercles are small bodies, or masses of
indurated matter found in the substance of the lungs, commonly found
in the upper and posterior portion of them; the situation is in the cel-
lular tissue of the lungs, and not in the air cells. It is said by Stark
that in the dissection of those who have died of Consumption, tubercles
are found of all sizes, from that of a small gravel, to the size of a Ches-
nut, a horse bean, and generally in clusters. Upon being cut into, they
appear white, smooth and cartilaginous, (wholly inorganic, no

repels can be traced in them) in the smallest of them there is no cavity ²⁴⁵
or opening, but consolidated; in those which are farther advanced, there
are several minute apertures like pin holes; in the larger ones, there are
two or more cavities containing a fluid resembling pus; this fluid
being removed, small apertures are to be seen, through which, by pres-
sure more of this purulent fluid can be forced. The largest are to be
found in mere capsules containing the purulent fluid, and having the
small ramifications of the bronchia communicating with them. To the
origin and nature of these tubercles no precise knowledge has been ac-
quired. Some consider them as connected with a strumous diathesis:
while others regard them as only enlarged lymphatic glands. How-
ever the first of these opinions may be I will not decide. It appears
however to be pretty well established that they are connected with
serofula; but that they are not enlarged glands of the absorbents
is well established. There is perhaps no organ in the body that has so few
of these glands as the lungs. By dissections Baillie has shown that they are
mere depositions of matter from the capillary arteries, and they are of va-
rious kinds. Sometimes they are cheesy, being of the consistence of Cheese;
sometimes they are cartilaginous; sometimes osseous; and sometimes they
are so peculiar in their nature, that they cannot be compared to any
thing. Thus formed tubercles, remain for a long time, sometimes for many
years inactive, producing little or no inconvenience whatever. (This is
not always the case; when they are numerous, sometimes death takes
place according to Lennec without any of them arriving at maturation.)
at length they become excited into action by some of the ordinary
causes of Catarrh; and then they undergo several changes, they first
become enlarged, red and more vascular, a cavity forms in their cen-
tre which is filled by a small quantity of imperfect pus; this cavity

The first of these is the fact that the
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increases till the tubercles loose all solidity and compactness, and is 247
converted into an abscess which is termed an occult vomica; they burst
and are then called open vomica: its contents are discharged into the
bronchia and copiously expectorated, after the rupture of several vomica
ulceration goes on rapidly till the entire substance of the lungs is de-
stroyed, or they become one mass of disease: now it is that the hectic fever
supervenes, and the system of the patient rapidly sinks. Sometimes only
one tubercle breaks at a time, the case then becomes exceedingly pro-
tracted, now and then the part heals, there is a remission of the symptoms,
the patient is encouraged and expects a recovery. At the next exposure
to the exciting causes one or more of the tubercles inflame, and a repetition
of the same distressing symptoms takes place. Thus the disease continues
alternating for some time, till finally the constitution gives way, and the
patient rapidly sinks. Of the exciting causes of Consumption already
attended to we may notice, Catarrhs, ill cured pneumonia, repeated
eruptions, certain eruptions in which the body is kept much bent, or
where small particles of acrid or irritating matter are continually
taken into the lungs, as is the case with stone cutters, who are pecu-
liarly liable to the disease; so also millers from flour inhaled into their
lungs; those who grind the points of pins, needles, &c. it has been the con-
sequence of a suppression of the hemorrhoidal, menstrual, or other ac-
customed evacuations, Changes of air and climate are also to be noticed,
of which more hereafter.

Pulmonary Consumption usually commences with a slight cough,
which becomes habitual, is little remarked by the patient, and is some-
times denied, the respiration is generally hurried, and the patient be-
comes languid and indolent. This state of things continues for a year or
two years; no complaint being made, excepting that the patient is affected

by colds more readily than usual. He often has a cough which is 249
supposed to arise from cold alone and excites no alarm in the patient
or his friends, no precaution is taken. On one of these occasions of tak-
ing colds, the cough becomes more considerable, especially at night, and
continues longer than usual. This now excites attention, particularly
if it be during the summer season, the catarrhal symptoms appear-
ing at this time are always more alarming, as they show that the disease is
more fixed. The cough at first is unattended by expectoration, but
when it is more confirmed, there is some expectoration; the quantity of
matter becomes more considerable and has a mucous-like appearance.
The pulse in the beginning was small, &c. but now becomes hard, cor-
ded and frequent denoting inflammation. By degrees the expectoration
becomes more copious, viscid and opaque; at length it is of a yellowish
green colour and has a purulent appearance. The whole of the discharge
is not always changed; part usually appears like mucus; when the cough
continues through the ~~long~~ night and the matter expectorated ex-
hibits these changes. The breathing becomes more oppressed, the ema-
ciation, weakness and debility increase from the hectic fever which
is fully formed. These are the symptoms of the tubercular form of Con-
sumption, as detailed by Dr. Duncan. It is easy to distinguish it from
the other forms of the disease, as it is always attended by a peculiar con-
formation of the body as indicated by the long neck, narrow chest,
high shoulders, the prominent cheek bones, by the delicacy of the com-
plexion, light hair, blue eyes, fine skin, tumid lips, weak voice,
great sensibility, vivacity of mind, and by all the signs denoting
a scrophulous diathesis. Long arms large hands

Prognosis.

Treatment. Now the treatment in this form of the disease it is obvious must vary exceedingly in the different stages. The indications in the first stage are to be noticed; and the treatment adapted to them must be considered. As a primary object here is to arrest the inflammation in the tubercles, the means cannot be mistaken. The first is unquestionably V. S. It is nearly a century since this was introduced in the early stage of the disease by the celebrated Boerhaave, author of the powder which bears his name. He advised that blood should be drawn at first moderately, every day for 8 or 10 days and then to be taken every 2 or 3 days for a much longer time: in this way bleeding his patient upwards of 50 times. Thus by abusing the remedy it was brought entirely into discredit and a directly opposite plan was pursued. To Dr. Rush the credit is unquestionably due for reviving this practice, at least as respects this country and of regulating it by a sound discretion and judgment. In this as in all other cases, regards the pulse and all the other circumstances which will lead to a knowledge of the state of the system and constantly bear in mind, on one hand the importance of subduing the inflammation, & on the other the extreme debility of the patient and the direct tendency of this remedy to increase and hasten exhaustion. after V. S. has been carried as far as possible, or as we deem it prudent we may as an auxiliary employ topical evacuations by Cupps: and undoubtedly the greatest advantages has been obtained in this way during the early stages. I have reason to believe that in the generality of cases it is to be preferred to the lancet. It relieves but does not prostrate the system. But if there be much force in the circulation, and any unusual vigor in the system, then the lancet is to be resorted to, and that very freely. There are cases in which

The first of these is the fact that the
 system of the world is not a simple one
 but a complex one. It is a system of
 many parts, each of which is
 connected to the others in a
 way that makes the whole
 system a single, unified whole.
 This is the first of the three
 principles of the system. The second
 principle is that the system is
 not a static one but a dynamic
 one. It is a system that is
 constantly changing and
 evolving. The third principle is
 that the system is not a closed
 one but an open one. It is a
 system that is constantly
 interacting with the world
 around it. These three principles
 are the foundation of the
 system. They are the principles
 that govern the system and
 that make it what it is.

depletion cannot be effected in either of these ways. The debility is ²⁵³ great that it would be followed by serious consequences; here unequivocal utility is derived from dry Cupping. The manner in which this operates is very intelligible: it invites the circulation from the lungs to the surface, and thus retards the inflammation. It is now much employed in this city, and of its efficacy we have the evidence of the best practitioners in this city, particularly Dr. Physick, who is enamoured with it. The immense advantage of counter-irritation in consumption has been long known and established.

Blisters, Setons, or Issues, are usually employed. I do not think there is much difference in the efficacy of either of them; you may employ the one or the other of them, but I prefer the first. A blister to have the full effects, must be kept perpetually discharging, which may be accomplished by stimulating medicines; of late it is the fashion both in this country and Europe to prefer the Tart. Emet. But I have reason to believe that it is recommended by little but its novelty. I have frequently employed it for the last 8 or 10 years, but am not sensible that it has effected as much as the perpetual blister; it is more disagreeable, gives much more pain, and hence in practice it will be much more resisted. Emetics have been employed in the early stages. That they are beneficial there can be no doubt, as we have in their favour the evidence of all the writers on this disease. They operate in different ways. 1st They equalize the circulation and the excitement. 2nd They promote the absorption from the lungs: of this fact we are perfectly assured from what we see in other cases as in Bubo. But in addition to these Emetics in the 3rd place invigorate the energies of the constitution in a manner not to be explained, of the fact I am perfectly convinced; having witnessed it in a great variety of cases; it is this way seasickness is useful. Much difference of opinion has existed, as to the particular articles to be employed. The Ipecac is generally to be employed.

I have been so affected in order of time, the subject of
 great that it would be followed by some degree of
 activity is derived from the griping - the manner in which this state is
 induced, the transition from the state of the body, and the
 return to the system, it is a most complex matter, and of the
 body we have the evidence of the best physicians in the city, Dr. P.
Dr. P. who is a most successful practitioner, the manner of
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 of the transition in Dr. P. is a most successful one, and
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 being interrupted in a great variety of cases; it is very much
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 which is to be employed, the Dr. P. is generally to be employed

I have usually exhibited it, and have reason to be satisfied with the results. 255
The Blue Vitriol is resorted to in Europe, and is insisted upon as being better adapted to this Complaint; why this should be the case, no satisfactory reason can be shown. That we may obtain advantage from vomiting, we must not desist too suddenly. The Emetics are to be given daily for a week or two, that any sensible impression should be made. By this means we imitate the effects of a sea voyage, which has been so highly recommended in Consumption, and obtain all the advantages of that remedy. During my residence in Europe this practice was relied on in the early stage by the physicians in attendance at the different hospitals, and like all other methods, with various success. But on the whole it will justify the Confidence placed in it. Certain it is that I frequently saw tubercles Consumption in its early stage removed by this remedy. The best writer on this subject is Simmons; he had a great deal of experience in Consumption, had attended accurately to it, and had employed the various remedies recommended for its cure. He finally came to the Conclusion, that after all, the most successful method of cure in the early stages, is vomiting in this continued manner.

As part of the same plan of treatment it is very customary to recur to those articles which are calculated to reduce the force of the Circulation.

By some this is obtained by the Saline purgatives. Tho' sometimes these are exceedingly beneficial; any excess of purging is to be very carefully guarded against, as it is always very mischievous in all pulmonary diseases.

Contented with keeping the bowels regular, it is a more common and safe practice to employ the antimonials alone, or in combination with nitre.

The Antimonial powder without calomel answer very well and are preferred in this place. All of you must know that for several years Mercury has been highly extolled in every stage and form of Consumption.

Tho' generally considered so this is no new practice. At the Commence-
ment

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ment of the last century it was employed by Dr. Ratchiff in the case 257
of King William the 3^d. and was then a fashionable remedy in other complaints.
It formed part of the treatment of Morton, who wrote on the disease some
time after. It appears that except in some cases which I shall detail to
you hereafter, it has now lost all its reputation and has for a long time
been totally abandoned, until revived by Dr. Rush. That mercury
has occasionally been useful, cannot be denied. It would be easy to
collect many cases where the patients have been relieved or completely
cured by a salivation, but I am persuaded that none of these cases was
genuine or tubercular Consumption. At present we may state that it is actually
mischievous in every stage of scrofulous or hereditary consumption; and no practitioner
in this country or in Europe employ it in these cases. During the time when such san-
guine expectations were raised of its efficacy, mercury was generally and indiscrimi-
nately employed in all cases of disease. The consequences of this practice were
very serious. It has been abandoned even by those who had at one time the greatest con-
fidence in its efficacy. Why it should be injurious in Consumption, while it is use-
ful in scrofula is not very evident: the reverse might have been supposed were we
to rely on analogy alone; but of the fact of its doing harm there can be no doubt. In some
cases it will act as a poison; more than once have I seen persons well enough to go out
and transact business, by the exhibition of mercury to be confined, daily to become
weaker in a few weeks to be destroyed. This observation is not peculiar to myself;
all practitioners in this place acknowledge, and I am fortified by the united
experience of the medical world. Among those who lost their confidence in it, was
Dr. Rush, who at one time considered it as the anchor of hope. A short time before
his death I knew him to decline its exhibition in a case of Consumption, from
a distrust of its efficacy. What report shall I make to you of the Digitalis?
The instances in which digitalis is most advantageous, cannot be detailed;
but I that it has been in the following, that it has displayed its powers, now

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and then. (I refer you to my work on *mat. medica.*) these will occur in del²⁵⁹
icate, irritable habits, a slight hemoptoe with some dry, diminutive cough,
and pain in the side and breast, the pulse is small and accelerated, there is con-
siderable debility, so that considerable solicitude is excited. There is neither
dyspnea nor purulent expectoration. Here *℞. S.* from the irritable, debilitated
state of the patient is inadmissible; and it is in such cases the digitalis may
come in as a substitute for the lancet. Given in such ~~doses~~ as to keep down
the pulse I have found it most commonly to succeed. With the same views
the Prussic Acid has lately been recommended. Most of the trials in this
city do not confirm the alledged utility of this in Consumption. In France
and Germany I find the confidence is nearly gone of this article. Dr. Stan-
crede of this city recommends it. (see my journal.)

These are the most important remedies employed in the treatment of tuber-
cular Consumption. But when its progress is not arrested, abscess forms,
and hectic fever supervenes, with all its horrible consequences. Now the com-
plaint is absolutely beyond our controul and will in all instances inevitably
prove fatal. Cases in all shapes of Consumption never appeared as far as I
have ever witnessed. Nevertheless, humanity, as well as a sense of duty,
should compel us not to withdraw our exertions; we may palliate the symp-
toms and it is always right to try daily the most approved remedies. The
indication is to abate the Hectic fever. But the nature of this form of fever,
and the remedies which it demands, I have formerly treated of so fully that
nothing now remains to be said; whether arising from an abscess in the lungs
or in any other part it is identically the same. It is uniformly Intermittent
and demands the ordinary remedies for that Complaint, as the Bark,
the Vegetable Bitter, also, arsenic, Sugar of Lead, Sulphur, Myrrh,
and Steel. As this species of Consumption is so generally considered as
of the nature of scrofula, it will readily be supposed, that the remedies

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for this last disease have not been overlooked by practical writers. The whole of 261
them have been at different times employed with little or no advantage. My suc-
cess with the Nitric acid in peripneumonia leads me to hope that it may prove service-
able in tubercular Consumption. Actuated by a laudable desire for discover-
ing some remedy for this dreadful complaint, Roberts instituted a series
of experiments with almost every active article of the Mat. Medica. with
the Nit: of Silver, with the black oxide of Manganese, the white oxide of Co-
balt, the muriate of Barites, the salts of Copper, the acid, &c. un-
fortunately his publication is merely a record of his failures, in well meant
endeavours, in the cause of humanity. Thus I have given you a detail
of the general remedies which have been employed in this stage of tubercu-
lar Consumption. Of late years the ancient practice has been revived of
inhaling the fumes of Certain Balsamic articles into the Lungs. What ben-
efit has been derived from this plan I cannot determine. My experien-
ce in it has not been very encouraging, but more than one of my medical
friends have been pleased with the practice, and at present I am not
disposed to controvert their opinions. Of the articles employed, the chief are
the Terbinthinate preparations. The Balsam of Tolu and other articles of
the same class. The Terbinthinate articles I have found to uniformly
irritate and distressing, that I cannot help thinking they are highly inju-
rious, always aggravating the Cough, dyspnoea, &c. I remarked that this is an an-
cient practice renewed. But it is claimed as something new by some practitioners.

I however find that more than 100 years ago, it was directed very precisely by
Bennett, and that he particularly recommended the fumes of sulphur and of the
Balsamic articles. Could we place confidence in one half of what he says, our em-
ployment of it would be very great and successful. He says that by it ulcers
of the lungs are healed up and finally the disease is cured. Not long after Dr.
Pearson proposed the vapour of sulphuric ether; the vol: alk is also useful.

Stahl recommended the smoking of Tobacco, and Stramonium, Linnaeus 263
us recommended the H and resinous substances as superior to either

of the above. The best article is undoubtedly the either which employed ei-
ther by itself or strongly impregnated with Hemlock. Of the Hemlock-

Ej. of the ether Eij or iv being digested together and then inhaled. This if
it does not prove essentially beneficial, at least greatly mitigates the Cough, dysp-
nea, oppression, &c. &c. On the same principle the respiration of the atmospheric
air and mingled with several irrespirable gases has been recommended.

To give this practice a fair trial, Beddoes formed what he termed a pneu-
matic instrument; he in some cases exhibited the Carbonic acid in this
way, in order to correct the foul condition of the ulcers in the lungs. How-
ever plausible these views might appear, yet submitted to the test of expe-
rience they were found wholly unavailing. With exactly the same views,
it was suggested by the same enthusiast that vapour arising from cows
might prove very effectual. To execute this experiment most satisfac-
torily, he kept his patient day and night in the stable of these animals
for months. Absurd as it may appear, two cures are said to have been
performed in this way. The subject of one of these was the daughter
of Dr. Priestly, and the other a lady of rank in England. How this can
cure is not very intelligible. It is said that it is produced by the va-
pour issuing from the mouths of the animals. I am however exceedingly in-
credulous and do not recommend it to your adoption. It is a curious
fact mentioned by all writers on this disease, that the Butchers are to-
tally exempt from pulmonary Consumption. Extensive as were the inqui-
ries of Dr. Beddoes, he could not discover that there was one butcher
in England who had pulmonary Consumption, or even a tendency to it.
It is said also that those persons who work with Animal gelatine, as the
glue makers; are wholly exempt from Consumption. Among the other

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projects of curing this disease, is that of covering the patient with earth ²⁶⁵
he being placed in a hole recently dug. This practice does not want some
attestations in its favour. preposterous as it may appear, I have actually
seen it tried, while I was a student at Edinburgh; but had no other ef-
fect than that of aggravating, as would naturally be supposed, all the ex-
tremal symptoms. As the disease advances, especially towards its fi-
nal stage, certain symptoms arise demanding particular attention.
As I have said we cannot expect to effect a cure, and we must there-
fore be content by merely relieving the sufferings and uneasiness of our
patient. One of the most troublesome of these distressing symptoms are the
night sweats; as these arise from debility of the extreme vessels, stimu-
lating applications must be made to the skin; flannels here is very impor-
tant, and should never be dispensed with; frictions also either by the
hands alone or with Brandy and salt should not be forgotten. many in-
ternal remedies have also been advised. the mineral acids especi-
ally the sulphuric are usually directed; either alone or in combina-
tion. Besides these, there are many articles, as Alum, Sugar of Lead,
Arsenic, now and then chalk will answer, powdered oyster shells &
sometimes lime water. I have known some of the mild ~~drugs~~
Diuretics effectual, as water, mallow, common Parsley and even
Cold water. The mode by which they operate is very intelligible. I have
already frequently observed that the action of the skin, and the urinary
organs appear to be in an inverse ratio. Thus by giving some gentle diu-
retic the effusion which appeared on the skin is determined inversely
and appears in an abundant secretion of urine. It is precisely on the
same principle, that diaphoretics cure diarrhoea. As regards the di-
arrhoea which always appears in the course of the complaint, it is not
necessary for me to give you any particular instructions. The remedies

are precisely the same as for diarrhoea under ordinary circumstances, and 267
are to be administered on the same principles. But it should be particu-
larly remembered that here diarrhoea is very mischievous from the ex-
haustion which it induces. It should therefore never be allowed to remain
as it may quickly run on to a dangerous extent. Towards the close the
cough becomes exceedingly aggravated and oppressive. To relieve we
should resort to the usual means. Most of the cough mixtures will an-
swer, particularly one I formerly mentioned. The Nitric acid and Lac
ammon. & sol. alk. Here the Balsamic articles are safely used. The
Balsam of Tolu is the best, tho' the is, may be detected. There is
a nostrum much employed in this city under the title of Balsam of honey.
the basis of which is Balsam of Tolu; is blended with other articles as
to render it much more agreeable, than it is found in. It is not a long time
since the confidence in this Balsam of Tolu, was very great: but of late
years its virtues have been denied. Dothrigill Condemned it from its heat-
ing and stimulating properties. From an extensive employment of the ar-
ticle, I should conceive that it is useful only when improperly admin-
istered. When given in every stage, and under all circumstances it must
sometimes do harm; but this is the fault of the practitioner and not of the
medicine. After all our chief reliance must be place on opium: and
hence most all our remedies however constituted should have opium for
their basis. Altho' they should not afford permanent relief will miti-
gate the symptoms. I have reason to believe that we accomplish more by
opium than merely palliating the symptoms. In other cases of Consump-
tion where there are no tubercles, there is no remedy so useful, it quiets
the cough, anxiety and other distressing symptoms, and contributes not
a little to the complete recovery. All the narcotics are useful, but opium
is the best. This finishes what I have to say on tubercular Consumption,

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which as I before said is in its advanced stages wholly incurable. 269
There are some other forms of this disease where we can be more successful, but in which we are frequently baffled in all our endeavours.

Catarrhal Consumption.

This differs materially from the preceding form of the disease in several respects. In this there is no constitutional predisposition or strumous diathesis; it is seated in the lining membrane of the trachea, and not in the substance of the lungs; it always comes on as a simple Catarrh, and hence may be induced by that Complaint being badly managed. It must also be distinguished by an inquiry into the Causes which produce it. No. often these are very similar; ordinarily it is attended by all the symptoms of Catarrh, by cough, pain in the side, a soreness of the throat and breast, with coughing and expectoration of matter; this is at first phlegm or mucus, but finally becomes pus. This now gives rise to great anxiety, as from this circumstance ulcerations are suspected, or in the opinions of most writers ulcerations are proved to exist. This however is not the fact, dissections satisfactorily show that it is a morbid secretion from the lining membrane of the trachea and so far from there being an ulcer in the lungs, these organs in many instances are found perfectly sound, the pus being formed by the inner membrane of the bronchia. Another peculiarity of Catarrhal Consumption is, never being attended by hemoptoeis at any stage, and generally no blood can be discovered in the expectorated matter. Occasionally a little may be seen in streaks scattered thro' the matter thrown up.

Treatment. As relates to the treatment I have very little to add to what has already been directed for tubercular Consumption: most of the same remedies and the same general practice being applicable to each. Being now decidedly more inflammatory, and generally occurring in the robust and plethoric, all the directly depleting remedies are demanded, and may be employed safely and with utility. Of these I have formerly given you a detail, when lecturing on the other form of this disease. But the practice in the two cases is somewhat different. Confessedly it is in the Catarrhal Consumption, and especially when the bronchia are much affected, that Emetics are the most useful. The Balsamic medicines display great powers in these cases. To them I do not denounce this practice, and I think do harm in lessening our confidence in these articles. They can only do harm when indiscriminately employed. The Solus is to be preferred; it has a kind of specific effect on the mucous coat, as illustrated in gonorrhoea.

When failing we should resort to mercury, keeping up a moderate tyation for several weeks. In this case salivation should be invariably employed, as it will never prove detrimental as in tubercular Consumption. What I have said relates to the pimple form. To relieve congestion Emetics are useful; Calomel and Squills; juice of Garlic; Tar, I have found of great service given in pills, Tar fumigations, &c. are also useful here, but do no good in tubercular Consumption.

I have been thinking of writing to you for some time, but have been so busy that I could not find time. I have been thinking of writing to you for some time, but have been so busy that I could not find time. I have been thinking of writing to you for some time, but have been so busy that I could not find time.

Aposthumatous Consumption.

This is the third species of consumption, and often arises from cold, as the last form. It is the consequence of Pleuritic inflammation, and arises from an abscess in the lungs. There is no difficulty in distinguishing it, being occasioned by inflammation of the lungs or its membranes; by wounds, contusions and other similar causes. When it occurs from any such accident, the symptoms are usually very similar. There is a deep seated pain in the breast, and apparently fixed. There is considerable dyspnoea, with oppression and a cough, which tho' local raises but little phlegm or mucus until the abscess is ruptured.

The treatment in the early stages is much the same as for Catarrh. To prevent however the formation of the abscess, in the first instance we should boldly resort to all the usual antiphlogistic means. But when an abscess is formed and is attended by the symptoms above detailed, I would resort to Mercury with the view of salivation, totally regardless of the pulse and all the symptoms of inflammation. Of all the remedies it is the most effectual in stopping the progress of ~~the~~ disease in any of the great viscera, as the Liver, the spleen, the Kidneys, the Lungs, &c. In the disease of the Lungs this is so much the case, that I habitually resort to it in all cases of Pneumonia, and I would advise you never to neglect or even delay it one moment when matter has formed, which may be known by signs,

An abscess being produced, it is necessary to discharge its contents, and commonly it will heal rapidly. Where it does not rupture spontaneously we may try Emetics. Sometimes matter will be discharged by inhaling the vapour of various articles, which operate by promoting expectoration. The vapour of warm water, of vinegar, turpentine, ether, &c. will answer. Every part of the subsequent treatment is so analogous to that of tubercular Consumption, that any more observations would be superfluous. But I would state that

Apocynum androsaemifolium

[illegible]

the remedies there recommended, the most unequivocal advantage will be ²⁴⁵
derived from the Nitric acid, with the Lac Ammoniaci. Whether by virtue of
the acid, or any other way I know not, but the dyspnoea, the cough, &c. are great-
ly relieved by it. From the known properties of the nitric acid we may suppose
that it would contribute to the healing of the ulcer of the lungs. That this acid
from its effects on the system will promote the healing of ulcers on the surface of
the body all admit; and no reason can be assigned why it should not be equally
advantageous in cases of ulcers situated in the lungs, or other interior parts.
Opium is useful.

After all however, tho' in the last two cases of consumption we can sometimes ef-
fect a cure; yet this is so rarely the case, that even in these almost every thing de-
pends on our attacking the disease in its early stage and energetically employing
all our remedies. As a means of preventing the advance of consumption to any
extent, or of rooting it out in its early stage; much has always been expected
from a removal to a warm climate. By the generality of practitioners a cli-
mate dry and equable has been preferred. The propriety of this selection has of
late years been questioned, and the practice condemned. The late Dr. Bond
of this city made a practice of sending his patients to the miasmatic districts of our
country with a view of inducing the ague and fever, to arrest the progress of con-
sumption. With what results I do not know. The proposition which has been re-
cently made by some medical men is that the Intermittent fever is incompat-
ible with all other diseases; and hence when it occurs it either suspends, or com-
pletely eradicates them. It is a despot and can bear no brother near the throne.
To illustrate this they attempt to show first: That throughout the world, wherever
ague and fever prevails to a great extent all other diseases vanish. and this is
especially true as regards G. Britain. Thus in England consumption prevails
to a great extent in Derbyshire, but there is no solitary instance; but in
Lincolnshire where the intermittents are numerous, and sometimes dangerous

the meeting these recommendations, the first consequence of which would be
 to give to the American people, with the American people, the American people
 the right, a very different way of thinking, but the same way, the same way
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 that it would contribute to the making of the future of the country, that it would
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Observations on the case of the future

After all, however, the first two cases of the future, the future, the future, the future, the future, the future
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they have no instance of Consumption. Nor do they limit their researches to 277
Great Britain, but extend them over Europe. In Holland, ague and fever is com-
mon, but Phthisis is one of the most rare diseases in that Country. I
made the same remarks 20 or 30 years ago: it is said that the observation
is also correct as regards Flanders. The ague also is very common in Egypt
and there is no Consumption; but the most striking evidence of this fact is
in Italy. The climate of this country is by far the most equable in the world,
but it is said that in these parts where there is almost perpetual sunshine
and a bright perennial sky that Consumption prevails to an alarming ex-
tent. But that in the finny districts there is ague and no Consumption.

Notwithstanding this accumulation of evidence, I by no means wish to press this
opinion on you, we ought to demand stronger evidence and more numerous sour-
ces of testimony to render these facts indisputable, before we surrender up those
opinions which have always been maintained as correct. From what has been
said it appears, that though there can be but little doubt, that a mild, dry
and equable climate is to be preferred. From indubitable testimony it seems
that many of these places usually recommended are liable to the disease, and
that little is gained by the change of residence. This is the case with the South of France
with Naples, with Rome, with Venice, with Leghorn, with Lisbon, even the Isle
of Madeira affords no exception. It appears that of late years, the South of Spain
about Valencia, has been recommended by the Europeans. As to ourselves the
West Indies are resorted to, and usually Bermuda, but these are not entire-
ly exempt, and this island perhaps less than any other, probably owing to its ex-
posure to the sea air, from its small size. Any one of the West Indies which is lar-
ger may answer, and on the whole will be the best place. It is pretty well ascer-
tained that no section of the U. States is wholly free from Consumption, which
prevails very much all along our sea coasts, especially to the eastward. We
must therefore look for a situation, less exposed, but in every part there

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weather is so variable, that it is hardly safe any where in our climate. 279

The interior of Georgia or North Carolina, or New Orleans, is the best: but even here the climate is not without vicissitude and there is great hazard, unless great care and circumspection is exercised. On the whole considering the inconvenience of changing the residence, and its equivocal utility, I do ~~not~~ think as much benefit will be derived by confining the patient to a room kept at an equable temperature, 60° or 65° Fahren. True much has been attributed to a sea voyage, and perhaps justly, especially if resorted to in the early stage of the complaint. If the disease be abandoned, I have seen its course expedited, and the fatal event hastened. Exercise regularly, tho' moderately taken, usually on horse back is now fully recognised as being of great utility. Sydenham recommended this with more than his usual confidence, and subsequent experience. It should be employed with judgement; being highly stimulating it should not be resorted to when the pulse is full or active, or where there is an inflammatory diathesis. In this condition it often induces hemoptysis, or accelerates the march of the disease. When the system is properly prepared, regular exercise on horse back is worthy of all the praise which it has generally received.

Diet after all must be strictly attended to, all agree that it should be light and easy of digestion, having no tendency to heat or excite the system, nothing is better than Milk alone, or mixed with the farinaceous articles, and these have been generally recommended, as Ripe fruits, &c.

To conclude my observations, I would advise that all the exciting causes should be studiously avoided, exposure to cold is to be guarded against by warm clothing, especially by wearing flannel next the skin. This closes the history and treatment of this disease. Recollect I have pronounced one form wholly incurable; of the two others, tho' we can now & then afford relief, and even accomplish cures, yet these are very rare, and can
not

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not be accomplished by any particular plan. Hence it is our sacred ²⁸¹
duty to prevent its formation, and attack it uniformly in its ~~first~~
early stage. Next to fevers, it is the greatest outlet of human life. It
has been estimated that $\frac{1}{5}$ of the inhabitants of G Britain die with this
disease. And it seems to be the design of providence to blend good with
evil, for wherever there is a poison, there is also its antidote, and I seri-
ously believe gentlemen, that a remedy for pulmonary consumption will
hereafter be revealed to reward us for our diligence and perseverance in
the wide field of this interesting inquiry. —

Diseases of the Absorbent System.

Dropsy.

We now proceed to the diseases of the absorbent system, the first of
which is dropsy. By this name is meant a preternatural collection of a
serous or watery fluid in the cellular texture or in the cavities of the body.
And the disease receives names from the different situations in which
it is found. As however the principles of one form will illustrate those of
most others, I will call your attention to only ⁴these forms of the disease;
which are, Anasarca, Ascites, and Hydrothorax ^{and Hydrops Cerebri} or Hydrops Pectoris.

Much controversy has existed as to the pathology of this disease. But
the only facts that appear to be established, are, that it arises from the destruc-
tion of the balance which naturally exists between exhalation and absorp-
tion. All who have any acquaintance with Physiology, know that when the
parts are undisturbed a watery fluid is thrown out into the cavities of the

... ..

body, and afterwards taken up by the absorbents. Hence dropsical²⁸³
collections arise from an excess of effusion, or from the decay^{or impurification} of the powers
of absorption. As to the question which of these is the most common cause
of dropsy, I believe from the result of my experience, and from general rea-
son by which we must always be more or less guided; that in a great ma-
jority of cases it arises from an excess of effusion. At this late period of the
course, our time is too precious to enter into an illustration of this point,
nor is it indeed required, as our practice is not affected by whatever view
of this subject we may adopt. But you may ask how it comes to be treated
among the diseases of the absorbents, if the above view of its nature is cor-
rect. I only answer that as great difficulty attends every nosological ar-
rangement, and as our remedies are chiefly directed to the absorbent ves-
sels, this appeared to be its most natural situation. All practitioners how-
ever they may differ as to the theory, direct their attention to invigorate the
absorbent system. As to the pathology of this disease, a more important
question arises, as to the nature and degree of the morbid action, in as much
as the result of the investigation determines our mode of treatment. The
European writers maintain that it depends altogether on the debility
and relaxation of the system and consequently they place their confi-
dence in ^{stimulating} Tonic Medicines, which often are followed by a fatal termina-
tion of the disease. In this country we adopt another and contrary view
of its nature, which directs us to employ opposite practice: but we also
have gone too far; and truth as customary will probably be found in a me-
dium between the two extremes.

Dropsy is connected with opposite conditions of the system, and therefore re-
quires different remedies under different circumstances, all have seen
it recurring as a febrile affection, attended with a fullness and activity of
the pulse, hot skin, parched tongue, &c. and demanding the free use of

the lancet. This is not by any means a new idea: such a view of its 285
nature was laid down by Stahl and particularly by Botellius, after-
wards by other Germans, and also by French writers. The idea of Stahl was
this, he supposed that all hemorrhages were the result of ~~an~~ an effort
of nature to relieve the system of too great a quantity of blood, but that
the "Anima Medica" which presided over the body thought that the wa-
tery part of the blood would be better spared, than its red or coagulable
parts, it was therefore discharged instead of hemorrhages of red blood. In
all cases he conceived that such effusions were intended for the relief of
the system. Botellius considered it as an inflammatory disease only to
be relieved by v.s. Th and many other French writers adopted
this opinion; indeed it became so universal, and the practice deduced
from it was carried to such an extent, that it became the subject of pop-
ular ridicule, it was on this account that the character of Dr. Sangrado was por-
trayed in the celebrated romance of Gil Blas. Nevertheless it not unfrequently is ac-
companied with very feeble action. In many cases it arises from exhaustion or from
diseased viscera of the thorax or abdomen. ^{Liver, spleen, stomach & pancreas} After all there is much obscurity and
uncertainty in the employment of our remedies: no doubt this arises partly
from wrong views of the condition of the system. Aware of this the humorab
pathologists gave names to particular conditions of the system which predis-
posed to dropsy or actually attended it, as the Leucophlegmatic, Cachec-
tic, ^{scabietic} &c. &c. But this division is too much involved in false theory as well as
other perplexities for practical purposes. Not long since new views have been
advanced on this subject by Blackall, who maintains, that the quality
of the urine is the best test of the kind of dropsy, or criterion of the state of the
system. The result of these are 1st That when dropsy proceeds from high action,
the urine is coagulable by heat and the nitrous acid, as the albuminous
matter of the serum of the blood. 2nd When it arises from visceral un-

By tying the vena Portarum of a dog, dropsical effusions were deposited in the abdomen - the carotid being tied the cellular tissue of the neck was filled ^{by} dropsical effusion.

I think the blood vessels instead of secreting thin or watery fluids secrete a gop, which condenses into a fluid, constituting dropsy. I have seen dropsy immediately follow flatulent colic. Sometimes dropsy is induced by checked perspiration - several cases related by Dr Chapman.

We shall generally find Ascitis and Hydrothorax brought on by inflammation of the peritoneum and Pleura.

Post mortem examinations. collections of water - Liver, pancreas, spleen
 enlarged - peritoneum inflamed - Mesenteric glands enlarged - bowels flabby -
 stomach shrinking -

soundness it is marked by a scanty high coloured urine, which is 287
loaded with a red or latent sediment, and is not affected by the
acids or by heat. 3rd When from feeble action the urine is scanty and pale,
is not coagulable, has no sediment. These are the principle distinctions: but
like all other attempts at generalization they have many exceptions. The subject
however is important and well deserves our investigation. *A priori* it appears
likely that a high feeble action of the arterial system would influence the state
of the ~~system~~ urine; but it is not likely I think that any great practical
advantage will be derived from the circumstance. I suspect that the physi-
tians of this country will always prefer the examining the pulse rather
than the urine in judging of the state of the system. As to the causes of dropsy
I cannot say much, but must refer you to many practical writers. It
is generally the effect of long continued diseases by which the system has be-
come much disordered, as Intermitt. Scurvy, Dysentery, leucorrhoea,
Gout, Rheumatism, ^{Pleurisy, Pulmonary Consumption,} asthma, Scarlet fever, &c. Also it is the consequence
of an obstructed or depraved state of the viscera of the abdomen or Thorax;
now and then it arises from mere debility of the system and it is generally in
these cases only that the absorbents are in fault. I shall proceed to con-
sider the several forms more particularly; and first of Anasarca.

Much of what I shall say on this will apply also to Ascitis; but dropsy
of the chest is somewhat different, and requires a different treatment.

This commences with a swelling of the feet and ankles, appearing at the
close of the day and disappearing in the morning. The skin is soft and in-
elastic, and upon pressure forms pits or indentations, which continue some
time after the pressure is removed. The skin in these being more pallid than
in other parts; by degrees it ascends to the thighs and trunk of the body,
and at last affects the face and eyelids. The internal parts then are af-
fected, difficult respiration is induced from effusion into the cellular

Diagnosis easily distinguished.

Prognosis. In proportion to the violence of the disease - duration, and visceral derangement, is the difficulty of cure - old & young persons most difficult. favourable symptoms copious discharge of urine, & watery discharges from the bowels - absence of fever -

texture of the lungs, & into the cavities of the thorax, & abdomen. 289
The abdomen also becomes distended, thus constituting universal dropsy.

The bowels are uniformly constipated, the urine is scanty and high coloured; the skin is perfectly dry, and sometimes hot, pulse febrile, small and corded, and there is in almost every case great thirst. The disease now rapidly increases, there is great torpor and heaviness, an obscure slow fever, the distention becomes great; the serum is either pressed through the ^{phages of the} skin or discharges the cuticle in the form of vesicles or blisters. These break, the parts underneath mortify and slough; and the system sinks under a slow hectic fever. Like all other forms of dropsy it is connected with an excited or debilitated state of the system, but whether with the one or the other, two indications are always presented. First.

To evacuate the serous fluid already collected. Second. To effect a change of that state of the system which caused the effusion. We are first to notice dropsy of high action, and febrile symptoms. It is a fortunate circumstance that the remedies which lessen arterial action, increase the activity of the absorbent system. These two systems are in an inverse ratio: no medical fact is better established than this, that absorption is always rendered more active in proportion as the action of the blood vessels is diminished, and vice versa. Most practitioners in this country proceed on this principle, and notwithstanding what is said by European writers, bleeding in this particular species of the disease is indispensably necessary; but it must be tempered by a sound discretion & by an attentive observance of the state of the system. Here we have a pulse which is hard, very tense and corded; and the blood when drawn exhibits the signs of high inflammation. We may also add that the skin is hot, dry, and parched, ^{the tongue} the tongue white, the respiration laborious besides other inflammatory symptoms, in all the cases we may detract blood. &c. &c. may be repeated frequently as long as this state continues. It is very common in this place to bleed two or three times a week for 10, 12 or 15 times. I am perfectly persuaded that in this way

Cases are on record where a spontaneous hemorrhage has increased the powers of the absorbents so much as to remove large accumulations of water in a short time.

- ⑩ I have used them with great advantage in cases dependent on great torpor of the system - I shall speak of them when on the subject of Atonic Clap.

I have taken $\text{℥}200$ or $\text{℥}300$ in the progress of the treatment, where other 291
means without this would have been wholly ineffectual. But this plan is
not to be adopted in all cases. It is only admissible when there are unequivocal
marks of inflammation and of a vigorous system. Often there are cases
where moderate bleedings only are allowable and perhaps still more frequently
there are instances in which not a single drop of blood can be taken without
evident injury. As advantageous as V.S. is in these particular cases,
cases it is not wholly to be relied on other remedies are to be employed as auxiliaries.
Emetics were at one time a very favourite class of remedies in dyspepsia.
It is considered that they were powerful in promoting absorption. That they
have such a power cannot be denied, and many authorities could be cited as to
their efficacy, but at the present time they are very little employed, except to relieve
the stomach where it is affected with nausea, or loaded and depressed. They
have given way to the Purgative Medicines. These are called for not
only by their action on the bowels so as to increase the watery discharge, but also
so as relieving the high excitement of the system and as overcoming the constipation
which so invariably prevails. To evacuate the bowels is no new practice;
Sydenham who greatly reformed various branches of medicine is a strong
advocate for this practice; he employed purging every ^{day} unless prohibited by the
exhaustion of the patient. This practice I believe is perfectly sound & beneficial.
In the selection of articles much judgment and discrimination is required.
The old writers employed the drastic or hydragogue cathartics. But these are mischievous
in the high state of the system, and can only be employed in old chronic cases,
where there is ^{torpor of the alvine canals,} no fever and no visceral disease. Much efficacy is to be expected
from the saline purgatives, especially the Sulfates. Consecrated to dispepsia
with high arterial action is the Super-Sulfate of Potash in combination with
Salap. ℥j . of the former with gr. x. or xv. of the latter to be repeated every two hours
or so frequently as to keep a constant discharge from the bowels, or an artificial
diarrhoea. Exhibited in this way it is very prompt and efficacious. By it alone

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I have known in 3 or 4 days the intumescence and distention of the body com²⁹³
pletely removed, and thus the way prepared for the exhibition of some medicines.
It is therefore with the strongest evidence, and with the highest tone of confidence
I would press this upon your notice. Never have I had such reason to be satisfied
with any remedy, as with purging in dropsy with Cassia Tart. and Salap-
but it will not uniformly succeed and hence we have to employ articles wh
act more directly on the Lymphatics. But it is to be recollected what are the par
ticular cases to which the cream of Tart. is adapted, viz. to those with high ar
terial action.

In my last Lecture I detailed the nature of dropsy and made some obser
vations on the treatment of the inflammatory form of the disease, especially as man
ifested by effusion into the cellular texture. The remedies then suggested were
chiefly bleeding and active purging continued. Notwithstanding the general
efficacy of this plan it will not uniformly succeed and we must resort to those
means which act immediately on the Lymphatic vessels, in other words to
diuretic medicines. But we must still recollect that the disease, as we
are now considering it is inflammatory. Of all the diuretics, the one which suits to this
state of the complaint is the cream of Tartar. This has long been distinguished; but its
reputation was never so well established as at the present period. A number of
comparative experiments have been made as to the efficacy of Digitalis &
the Crystals of Tartar by Dr. Home and Dr. Ferriar, both of whom decide in fa
vour of the latter article. I however do not think that any comparison can be
made, and do not see how it can well be done; As the properties of the articles are
different, and are to be employed under very different circumstances. True
it is however, that cream of Tartar more expeditiously than any other article
carries off the dropsical effusions; and where it has this effect, it is by a com
bined operation as a diuretic and cathartic, promoting as well the operation
of evacuation by the bowels as by the Kidneys. This fact I mention more par
ticularly

Dr. Physick prefers the Tartrate of Potash - Soluble Tartar.

Combine the Tartrate, the Supertartrate, & Carbonate of Potash, in the proportion of 3i each, & you make a very active Hy-
drogogue -

⑥ Laupeia. Gentian - or any of the bitters with the Potash -

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ticularly as there are two modes of exhibiting this article, either as
we wish for one or both these effects. When dissolved in a large quantity of
water, it acts solely as a diuretic; while the same dose given in the form of ele-
ctuary, either alone or in combination with some other purgative operates
also on the bowels and forms what has been called a *Hydragogue Cathartic*.

It is therefore evident that the latter mode is to be preferred when large quan-
tities of fluids are to be evacuated. Tartrate of Potash, Supertartrate, and Carbo-
nate of Potash mixed in equal quantities are useful.

Much has been said at different times of the vegetable and mineral alkalis.
By some they have been applauded and by others condemned. I am not prepared to
enter into the controversy, especially as I have seldom employed them. The vegetable al-
kalis have usually been preferred by the old writers. The ashes of a variety of vegeta-
bles have been much used, but as these are only valuable for the potash they contain,
they have been superseded by the Carb: of Potash, which is now always employed:
at least in regular practice in preference to the ashes. There are cases where the
potash is particularly useful, as where the powers of digestion are impaired,
as frequently happens in habitual drunkards. In these cases an acid is evolved
which produces distressing effects. Cullen who holds the alkalis in a high es-
timation attributed all their properties to their forming with this acid a neu-
tral salt. This explanation I have great hesitation in admitting, but at present
will only observe that by combining it with a tonic we greatly increase its power.

Thus exhibited it acts not only as a diuretic, but imparts tone to the body
generally. This practice originated with Sir John Pringle, and is well at-
tested by some of the most respectable writers. Neutral salts are more efficacious

I have already mentioned the Cream of Tartar. There is another which was for-
merly supposed to possess very eminent virtues; and was therefore termed the
Sal Diureticus, (acetate of Potash) At present it is but little used, and I
have not much confidence in its virtues. Salts of Tartar and Lemon juice
The Alkaline mixture, dose a tablespoonful washed down with lemon ^{acid}

③ Apath: will take ozj dissolved in a quart of water with less distils of
Stomach than zj in the usual way—

Eminently adapted to dropsies ^{with} high action is Nitre. As a diuretic 294
it is inferior to most other articles, but its utility arises from the power it pos-
sesses over the arterial system, and in subduing febrile and inflammatory sym-
ptoms. The objections to its employment are, that when exhibited in adequate
doses, to produce its beneficial effects, it excites nausea, and so many dis-
turbing effects of the stomach, that we are obliged to discontinue it; to obviate
this give it in large dilution. I have given ℥j. in 3 pints of water in
24 hours. It is often given with the Saut. Emet. in form of the antimonial pow-
der, and there are cases in which this combination is particularly useful, which will here-
after be pointed out. As a substitute we may resort to the spirit nit; this is much inferior
in strength, and is much better adapted to children. When it is freely exhibited, I have known
it very serviceable. Most practitioners commit a great mistake in employing it in small
doses; when it is altogether inefficient large doses should be given. Not less than ℥j. or
℥ij. 3 or 4 times a day; as otherwise it will not be of the slightest service as a diuretic.
In small doses the only effect produced is on the skin, bringing on a gentle per-
spiration. When it does not go off by the skin or kidneys it produces febrile symp-
toms. Of the Milder Diuretics I will now mention the Common Parsley. This
although a domestic article is often very important, and I have a case of dropsy,
where tapping had been twice resorted to, quickly relieved by this medicine. Every
part of the plant is diuretic. The root however, in the form of a strong infusion I
have preferred. I know of no article which is of more use in certain cases of
dropsy, than the parsley. I would therefore strenuously recommend it to you; it
also can very readily be retained by the stomach, which is an important circum-
stance, as this organ is so generally in an irritable condition. It is common to add
to the decoction, the seeds of the water mallow; whether advantageously I know
not. It is a curious fact that some of the mildest diaphoretics, will occasionally
act very evidently as a diuretic. It is now some years since I have been assured
of the diuretic virtues of the following formula.

℞ Saucedanum. qtt. xxx.

⑥ Resin of Galap more active.

Sp. e nit: -- ʒij.

Ant. wine --- ʒtt. xli. m. This I have known to display

very extraordinary powers. Sometimes during the winter, I mentioned this circumstance to Dr. Wistar, he told me that he had been in the habit of using it for the last 20 or 30 years, and that it partly disappointed him. It is well known that medicines have sometimes a inverted or reverse action. Thus in the present cases where there is a tendency to the urinary organs, medicines which under ordinary circumstances act as diaphoretics, have their action reverted and operate powerfully as diuretics. Within the last two or three years much has been said of the powers of a native vegetable, the Pipsissewa. The credit of introducing it is due to Dr. Summeville of the British army. Since his time it has been gradually creeping into ^{the} practice of the English Physicians, and now is supported by some of their highest authorities. As yet it has not been greatly employed in this place. In the few cases in which it has been tried its effects were highly satisfactory. The mode of giving it is that of a strong ~~decoction~~ infusion; a pint or more to be administered in the 24 hours. The Extract is sometimes used; ʒj or ij in the form of pills, or dissolved in

It is said to possess great activity, and has this peculiarity, that while it acts as a diuretic, it has a powerful action on the stomach as a tonic. As I have detailed them, such are the remedies for the inflammatory form of dropsy. But the disease either originally or in the progress of the treatment assumes a different complexion and calls for other remedies. The system being reduced there is no demand for the Laxative. And where constipation is present the drastic purgatives are demanded, as combinations of Calomel with Gamboge, Scammony, ^{Colocynthis or Jalap} Elaterium, &c. The latter is extremely powerful, also the Croton oil. The best is the following —

℞. Gamboge — gr. v.

Elaten — gr. ʒij.

Dulc. Sp. nit: -- ʒij.

Water --- ʒiv. m. a Table spoonful every hour

Elatium very powerful hydropogus - $\frac{1}{2}$ or $\frac{1}{4}$ gr. very active -
 Croton oil powerful -

Elatin - $\frac{1}{16}$ gr.

Digitalis should be introduced gradually into the system to be of use -
 I have known 2 drops produce more effects upon the system than 10
 times that quantity in others - Generally commence with 4 or 5
 guttae repeat 3 or 4 times in the 24 hours -

untill it operates. Notwithstanding what has been said to the contrary, there 301
are no doubt useful in old and atonic dropsy. to deny this would be to discredit
the best medical testimony. There are also demanded other diuretics not yet pro-
vided. None are ignorant of the power of Digitalis in the cure of dropsy. This article
was introduced 50 years ago by Dr. Withering who asserts. "That so far as the remo-
val of the water expedites the cure, so much will digitalis contribute." no sooner
was this made public than attestations of its efficacy were collected in every di-
rection, which have since received ample confirmation. Whatever may have been
the fluctuations of its reputation in other diseases, in dropsy no one doubts its utility.
There is no form of the disease in which it has not been employed with decided
advantage; and all we have to do, is to prescribe it in proper cases and in appro-
priate conditions of the system. Extraordinary as it may appear, it is in a reduced
state of the system only that it displays its powers; so long as there is action in the pulse or gen-
eral strength, it is not only useless, but even mischievous. This opinion is by no means pe-
culiar to myself. Withering himself observes. "That it is of no service in persons of tense
fibres and of robust habits, but that when the pulse is feeble, the countenance pallid,
the surface of the body cold, it will seldom fail to do good." This fact you should bear
in mind: as reasoning ~~from~~ "a priori" we should suppose it adapted to an oppo-
site state of the system: determining from my own knowledge, the observation is very
correct, and is confirmed by most practitioners who regulate their practice on this
principle. Dr. Barwin was also influenced by the same idea, and exhibited the
article under the same circumstances. He concludes that it is infinitely to be pre-
ferred in all cases arising from debauchery and intemperance, a broken down and
exhausted system. Not a little difference of opinion has existed as to the best
preparation of Digitalis. Withering considered the Infus: as infinitely the most ef-
ficacious, and supposed that where a narcotic power was desirable, the Tincture
or the powder was to be employed. This distinction I believe to be altogether un-
founded and that the best preparation as a diuretic is unquestionably the

Rp. mymel of Sguile
 mymel of Colchicum
 Tinct. of Tobacco.

Sweet Spts of Nitre each ℥j. Dose a Tea Spoonful
 several times a day - 4 times a day

powder. As closely allied to the digitalis, I ought to mention the 303
Tobacco. Dr. Fowler, a writer of great and deserved celebrity, announced
this to the public as a diuretic; and as every other new medicine it acquired
many advocates; I however have had no reason to be pleased with it. If how-
ever we believe one half of what has been said on this subject, we need not look
any further for a cure of dropsy. It is given in the form of a strong infusion:
℥j of the leaves being infused in a pint of water; the dose being from qtt. xv. to xxx.
2 or 3 times a day, and gradually increased. The Sinecture is most used, in the
dose of qtt. xv.

I turn now from this article of equivocal virtue, to notice one which is the
most certain, the most efficacious and the most important of our diuretics.
I allude to the Squills. There is no form of dropsy in which it is not useful. It is
however a stimulant article and should be employed with discrimination and
judgement. I usually prescribe it in combination with Cal: gr.ij of the squills
with gr.ij of the Calomel. Cullen however condemns the combination, as he sup-
poses it runs off by the bowels; and with a view of directing it to the Kidneys, he
employs a neutral salt. As the supposition is purely hypothetical it deserves
no attention whatever: when the Calomel does irritate the bowels a small quan-
tity of opium may be added. At one time the question was much agitated, whether
its effects were best attained when it produces nausea, and other gastric an-
easiness, or whether these unpleasant symptoms were not necessary. Some recom-
mend the Squill in combination with nitre, gr. x. of each with a view of exci-
ting ^{vomiting or nausea} and at night to restrain this by means of opium. Dr. Cullen who was a col-
league, and in a great degree the rival of Home took up a directly contrary sen-
timent, and maintained that when the squill affects the stomach its diuretic
power is destroyed. The truth probably lies between them; the point in dispute is not
whether Emetics or Purgatives are the most efficacious; but whether the peculiar
powers of the squills are best obtained, when no nausea is excited, or when full

vomiting is produced. Here I to decide from my own experience, I wd 305
declare that the squill is the most efficacious where a slight impression is
made on the stomach. This is the practice in those cases where the system is
somewhat reduced; but we are sometimes called to cases in which dropsy oc-
curs in a cachectic and depraved state of the system, in which the most stim-
ulating articles are demanded. In such instances the Cantharides is very
useful. As regards this article there is something peculiar. Every practitioner
knows that it is prescribed for incontinence of urine, and also that it is em-
ployed to evacuate effused fluids. How it produces these opposite effects,
it is not easy to decide: An attempt however I would observe that Can-
tharides exhibited during an excited state of the system, or in small doses,
produces stranguary, but that when given under opposite circumstances,
as in large doses, it acts as a diuretic. Thus in ^{the} atonic cases of dropsy, &c. of Can-
tharides in doses of ʒj. several times a day, never induces stranguary, but large quan-
tities of urine are discharged. These facts do not rest solely on my own authority,
but are confirmed by many practitioners. I must not however conceal from you, that
this diuretic power has been totally denied. Cullen maintaining that it acts solely on
the neck of the bladder, but he is certainly deceived, and has been led into this
mistake by using it in an excited state of the system, or else employing it in small
doses. Of the Spts of Turpentine I cannot say much, it has a determi-
nation to the kidneys, and should not be forgotten in pertinacious and diffi-
cult cases. It is to be exhibited in small doses of qts. x. xij. as in larger doses it
purges. I am now to bring before you a medicine well adapted to this form
of the disease; it is the Polygala Senega. This is useful in all the forms of drop-
sy, and has been commended by many writers, as of great utility. But it has
never obtained much confidence or become a popular remedy. Percival is in
its favour, and although Dr. Cullen does not commend it for himself, he cites
many who have used it with advantage. Of late it is gaining ground both in

I believe that the *Polygala* and *Chimiphilla* act very little on the kidneys, but powerfully on the Lymphatics -

Two venous tinctures are found in the shops - one of the seeds and is one of the most powerful sedatives I know - ulcers & pain. One of ^{the} roots Stimulant. The one prepared from the seeds the best - Cultivated in this country, but does not come to perfection. It is entirely inert. Dose of the Tinctures ʒi.

England and in this country; and I believe that one reason why it is neglected is, that it has not been properly adapted to the state of the disease. No one has precisely pointed out the circumstances of the disease, to which it is applicable, nor laid down any precise direction for its employment. From what I have observed it is useful in those cases of general dropsy, where there is much vitiation of the system. Undoubtedly the Senega has a wide and prevailing influence on the different parts of the body, especially on the secretory organs. It extends its influence to the lymphatics and excites ^{living nature} these to action. Its powers are increased by combination with calomel. It is prepared by reducing the root to powder, after which if necessary it may be made into pills with the Cal: in proportion of gr. xx. of the Senega, with gr. j. of Cal: I must repeat that it promises most in cases of a universal or general de~~pression~~ ^{pression} of the system, and that it is probably owing to want of attention to this, that it has become a more popular remedy.

As a diuretic active and stimulating; the Cotichicum Autumnale has some reputation. It was originally introduced by Baron Stork of Vienna. He strenuously recommends it in the ^{old and appropriate} ~~weaker and atonic~~ forms of this disease and describes it as strikingly efficacious. I have rarely seen it employed, and suspect it never had any great ~~reputation~~ reputation in G. Britain or in this country, but on the Continent of Europe it has been and still is in light repute. It is employed in two modes; administered as an omyel, its harshness and violence are said to be decreased, the dose of which is ℥j. several times in 24 hours. For the last 2 or 3 years it has received much attention as the base of "Eau Medicinale" in imitation of which a saturated, previous Tincture has been made, the dose being ℥j. The seeds form a Tincture very useful.

Many of the articles termed Alliacs have been much employed in the atonic forms of dropsy, of which the garlic is infinitely the most important, as it gives an occlusion to the urine its diuretic virtues were suspected, and have been abundantly confirmed by Sydenham. It is highly stimulating. It was

③ *Prs. of Copper*. Books have put much confidence in them -
 Nearly in the same footing I wd place the *Chalybeates*. Muricated
 tinct. of iron - also the Sulphat of iron - useful in dropsy
 Connected with disordered condition of the stomach.

R Mustard seed.

garlic

Mcormack

Cawinga 10 3

Cash Pot a Infus 1/2 3

Hard Boil 3 quarts

Boiled for 8 hours

over a fire glass face
 until 8 hours

garlic

each 15 minutes

spoken of by Sydenham, and is much used in the London Hospitals. I believe ³⁰⁹ it will be found particularly adapted to that state of the disease, arising from debauched, intemperate habits. Horse radish, &c are useful.

Vol: Tr. of Guaiacum. also Sassaaparilla in simple or compound decoction. The latter better adapted to those forms of dropsy connected with ^{or some other highly exalted habit.} scrofula. The Guaiacum is best - In Vol: Tincture in repeated doses. ③

In my last Lecture I brought to a conclusion my observations on the diuretic medicines in the cure of dropsy. I detailed them with considerable minuteness as they possess different properties, and are demanded under different circumstances. If we succeed in our treatment of this disease, it must be by a proper attention to the nature of the articles we employ, and to the condition of the system in which it is demanded.

* Diaphoretics are another class of medicines, which are employed in dropsy. As an increased discharge from the skin lessens that from the kidneys we might suppose that diaphoretics were inadmissible. Nevertheless they are very useful. At one time they were a very favourite class of medicine, and have lately been revived in Europe. I have myself employed them and with sufficient success to recommend them to your notice. The particular cases in which I think them useful are those which originate from intermits and are kept up by visceral disease. These are commonly marked by considerable debility, by a cold surface, cold extremities, a dry skin, small, corded pulse, and by other circumstances denoting deficient action in the skin. Here diaphoretics act by centrifugal force, relieving the viscera; determining to the extreme vessels, equalising the circulation and establishing that healthy action of the skin which is so necessary to health. Nor is this all it would appear that dropsy is in some instances owing to an inverted action of the exhalents, depositing the serous fluid in the cellular membrane, or the cavities of the body, instead of effusing it as usual on the surface. I have seen more than one

In Anasarca developing the skin with oil cloth - induces perspiration - very useful round the whole extremities -
 Frictions with oils useful on the same principle -

case, in which I am persuaded that in this way by a reverse action of the 311
organs, dropsy has been produced. Here it is apparent by diaphoretics we are do-
ing the most to overcome this perverted action; and thus I have often employed them
with the most unequivocal utility. The external means generally succeed, such
as fomentations. In several cases in the Almshouse I effected a cure, or
afforded great relief by the vapour bath. It was about the time that Dr. Sen-
nings bath was introduced; and I may here observe that it was in these
cases only that I have known that contrivance to be productive of any ben-
efit. What would be the effect of inclosing a patient in a room of 120° or 130°
I know not from any experience; but I would suppose that it might prove
very beneficial, judging from the reports of Dr. Fordyce and others who stated
that when placed in ~~the~~ rooms of the above temperature, their perspiration
was profuse, and that they lost 15 lb. of their weight in a short time. A wet cloth
is very good in producing diaphoresis. Frictions with warm oils. However
beneficial these applications may prove, internal medicines are more
important. Combinations of Opium, Ipecac^a and Cal: are chiefly
to be depended on. Even by opium alone, without either of the above articles,
cures have been often effected. To this point we have the testimony of Chead,
Home, Robertson, Heberdon, and many other high medical authorities.
When it is productive of any advantage, it must be given in very large
doses. My own experience is not much in favour of opium exhibited by
itself. Altho I have found the Dover's powder of great utility, for the
last two or three years much has been said of the power of Eupatorium
Perfoliatum, which is recommended as being applicable to the several
forms of dropsy. Whether this is the case or not, I know nothing from my
own experience; but the physicians of this and the neighbouring states have
employed it frequently; as far as I can learn this has been done rather in-
discriminately. No one has pointed out the precise circumstances to

① Those cases occurring in Marshy districts and wearing the Intermittent type, it is no doubt well suited.

Cathartics, Diuretics and Diaphoretics act pretty much on the same principle.

③ It arouses the action of the absorbents in these cases -

When there is a stumous a senbutic habit, Mercury is not well suited.

A German ^{writer}, Brems says mercury ^{is} be cured to a salivation

④ The instrument used to perform acupuncture is better than the Lancet.

which it is applicable, we might suppose it suited to the febrile condition of the system. ① As yet I have said nothing of Mercury. That this medicine is important in some cases of Anasarca, there can be no doubt. It is however better suited to Ascitis. When anasarca arises from, or is kept up by visceral disease, no one would hesitate to employ it. But there is another case in which it is ~~as~~ fully as useful. This is when accumulations of fluids are owing not to increased effusion, but to diminished absorption. ② Of all the articles of the mat. med: none act so particularly on the absorbents as Mercury. When therefore we suspect the dropsy is owing to diminished absorption we may resort to mercury, but in the common forms of the disease, it will not in any way promote the cure, and will greatly debilitate the patient. I have now detailed the general means to be adopted in the treatment of anasarca. Sometimes however local means may be employed. Excessive distention may be relieved by small punctures with a lancet to evacuate the fluid. These however should not be too deep, as erysipelas and gangrene may result. ③ While on this point I may observe that we are often called to cases of this kind where gangrene has resulted either from great distention, from debility of the capillaries, or great weakness of the absorbents, so that the vitality of the skin has been completely destroyed, and take on erysipelatous inflammation. In all such cases the treatment is very embarrassing. The usual remedies to check the progress of mortification proving unavailing, blisters so useful on similar occasions cannot be here used, as in many cases their application to oedematous limbs produce this very mischief, which we wish to remove. What I have found most advantageous is to compress the limbs tightly above and below the mortified parts, by means of a flannel roller. The principles on which this acts are very intelligible. In limbs thus situated there is neither the usual quantity of heat, nor the natural power remaining. By the roller warmth and tone is ^{im}parted to the parts, by which

the further progress of the disease is quickly arrested. As far as I know this practice is my own; I employed it very frequently in the Almshouse some years ago, and in 20 or 30 cases with great advantage. I believe it will be useful in all cases of mortification, acting as a blister, imparting tone to the parts yet unaffected. It has been already remarked that blisters produce gangrene, but this is not always the case, if judiciously employed great advantage may be expected from them. The period at which they appear to be useful is that where there is not much action or any great debility. If there be much arterial action, blisters are very apt to produce an extensive erysipelatous inflammation, which not unusually terminates in gangrene; and in the advanced stages there is so little action, that gangrene immediately results from their action. At the proper medium they are useful. As a palliative means when the distention of the limbs is great and painful, we may resort to friction with the hands, with olive oil, flesh brush, flannel, &c. Some advantage is often gained by the application of a roller, by which strength and vigor is imparted to the debilitated vessels.

I now proceed to the consideration of *ASCITES* by which we understand a collection of water in the abdomen. Most commonly this is in the great cavity of the peritoneum; sometimes however it is situated between the peritoneum and the abdominal muscles; in the latter are encysted dropsy.

Ascites is preceded by loss of appetite, by sluggishness and inactivity, by a dryness of the skin, by oppression in breathing, by a cough, scanty urine and constipation of the bowels. Not long after these symptoms have occurred a slight protuberance of the Epigastrium is perceptible, and soon the whole abdomen becomes swelled and tense; respiration often becomes difficult. Of the fluctuation we make ourselves sensible by placing the

I have seen a Lady which the most distinguished practitioners could
not decide whether she was pregnant or not —

left hand on one side of the abdomen, and striking the opposite side with the right. In this way the water will be very evident and can in some cases even be heard. This should be remembered, as in some instances ascites has been thought to exist when it has not. It has often been confounded with sympanitis, and still oftener with pregnancy. I have known a pregnant woman tapped under a supposition that she had dropsy of the abdomen. From these mistakes fatal consequences have often ensued. As respects the causes of ascites, they are essentially the same as those of anasarca. It may more properly arise from visceral obstructions, and other states of the abdominal organs than anasarca, besides I am persuaded that it arises in a manner which no writer has yet noticed. It is a common remark that the patients are very much disturbed by flatulency, not only at the commencement, but during the progress of the disease. This fact has induced in my mind the belief, that under certain circumstances the blood-vessels secrete a gas, which by condensation, or some other process is converted into water. That the blood-vessels possess such a power has long ago been proved by Mr. Hunter. And I have known several cases of dropsy speedily follow an attack of flatulent colic. During the late cold weather I was called to see a young boy who had been much exposed to the cold, and had an attack of violent colic: he suffered a great deal for several hours and was relieved by the discharge of enormous quantities of air. Next morning I was astonished to find him completely dropsical, and he continued labouring under a confirmed state of that disease. He was ultimately cured by diaphoretics, particularly by the formula of Sæud: spt. cit and ant. vine, already noticed. I have no doubt that this originated from the air being changed into water by some process peculiar to the animal economy. But however induced the same remedies are demanded in each case.

④ *Paracantaris*.

and these are similar to what have already been mentioned under the head of anasarca. I therefore content myself by referring you to what was there said. As however it more frequently is produced by visceral disease, Mercury is often resorted to. Combinations of Cal. with the digitalis & squills are usually preferred - but you will find much of the efficacy of mercury depends upon the gradual manner in which it is introduced. If employed suddenly and by large quantities, no salutary impression will be made, but it will very generally aggravate all the symptoms and render the disease more difficult to cure. Where there is much debility, frictions should be preferred. In some cases from the exhaustion of the patient, mercury is altogether precluded. Here decided advantage may be expected from the nitric acid. ^{with mercurial acid} It may indeed be received as a general rule, that this acid is serviceable in all cases in which mercury is indicated, But where we are prevented by debility from employing it.

I would make one or two remarks on the means of evacuating the water by Tapping.^{ing} The proper method of forming this operation you will learn from another source. It is proper to discharge the water where there is great pain, difficult respiration, and if he retains a moderate degree of strength, and where all the symptoms aggravated. In such cases it should be done without delay. Early tapping has been recommended by Dr. Forster, ^{Dr. G. Baker, and others} and is now pretty generally adopted. If it is performed late, after the strength of the system is exhausted, it is not only useless, but even mischievous, As the stimulus of distention is then speedily removed which supported the system and proved one of the main props of vitality. Previously to the resorting to the operation try the effects of a very large blister to the abdomen. True, this will very rarely answer as a substitute, but sometimes by it I have seen the swelling rapidly reduced.

seat of the disease that portion of Peritonium
investing the ovary or the disease may commence
in the substance of the ovary and affect the
serous membrane secondarily.

A case related by Johnson of London where the ovary weighed 9 lbs.
Another author mentions one w^h weighed 55 lbs. another 112 lbs.
another w^h weighed seven hundred pounds.

very lately I was called in consultation with two physicians in case of a Lady attended by Drs. Caldwell and Physick; where there was considerable doubt whether she had ascitis. The ordinary methods for the disease failed. A Blister was applied to the abdomen, and the next morning the whole tumefaction had subsided; it appearing that Gallons of water had been discharged by the blister thro' the night, which had actually run thro' the bed and settled on the floor beneath.

I must make a few observations before I dismiss the subject on Encysted Dropsy. Here the fluid is contained in sacks attached to some of the viscera and which have been usually termed Hydatids. Those cases have also been included under this title by Dr. Cullen and other nosological writers, in which the fluid is contained between the peritoneum and the parietes of the abdomen; but as they arise from different causes ^{and are not of a similar nature}, it would be improper to comprehend them under the same head. Between ascitis and encysted dropsy there are some striking distinctions. The former is preceded by a peculiar state of the whole system, called the dropsical diathesis; the swelling proceeds gradually and equally, and also there is more or less swelling of the extremities and other parts, particularly the face. In encysted dropsy there are none of these signs: thus it is local, a small sack begins on one side and then extends over the whole. There is little or no thirst, nor any febrile symptoms, the urine is not lessened or changed; and in the female sex menstruation generally continues uninterrupted, which is rarely the case in ascitis. In relation to the management of encysted dropsy, the same general course is to be pursued, as in the other forms, but especially we must resort to mercury. This will prove the most beneficial & I would almost say is the only one, in which much confidence is to be placed. This is also the more necessary as it is often connected with scirrhous and other visceral diseases. In this case topical remedies become more useful. Calomel combined with the narcotics and

particularly Cicuta.

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Blisters very frequently applied in the early stages are highly advantageous; and also as soon as water is perceptible a puncture is to be made, without the usual cautions noticed under Ascites. But after all we must confess that Encysted dropsies are very intractable, and are seldom cured. We cannot cure encysted dropsy, because it is nearly always connected with organic disease of the organ —

Hydrothorax or Hydrops Pectoris. *or Hydrothorax*

This is the third form of dropsy which we shall notice. This is the most dangerous and at the same time the most difficult to discover; as it is very apt to be confounded with other diseases. The water here is usually contained in the cavities of the pleura. Sometimes in both, but more frequently in one only: it is in some rare instances found in the pericardium, in which case the two are usually blended. Sometimes the effusion is into the cellular texture of the lungs; and when this is to a great extent it is termed anasarca pulmonum, in other cases hydatids are formed.

Hydrothorax commences with a sense of oppression and tightness about the thorax. There is some difficulty of breathing; the patient can't remain in bed unless his shoulders are elevated, cough, thin mucus expectorated. He is often suddenly awakened by a great sense of anxiety and oppression; there is more or less dyspnoea, requiring immediately an erect posture. The urine is high coloured and reduced in quantity as in Anasarca. Pulse at first is not quick or irregular, but in the progress of the disease it becomes irregular, intermitting and more active. There is a paleness and not unfrequently a purple hue of the face and lips, a cough at first dry, but in the advanced stage is attended with an expectoration of a thick mucous matter. The thirst is troublesome, and there is more or less pyrexia. The arms are commonly numb and

Death sometimes suddenly take place - sometimes appears to be enervating; when he dies immediately.

⑤ The latter must to be trusted.

When you strike a part on the side, there is the sensation communicated as if you strike a bag of cotton, when water is collected -

Phthisiscope - in Pericardium the sound is heavy and dull

That side of the thorax is enlarged - where the water is confined to one side, the anasarcaous swelling is confined to the corresponding limb.

⑥ Hydropericardium - sense of weight at the heart - ^{increased by extending a part of it} respiration difficult, pulse irregular, & intermittent: anxiety - face apt to be bloated.

Cullen says it is incurable. a peculiar pain about the heart together with a sense of fainting, a sense of strangling across the abdomen with an insatiable desire to hang over the back of a chair - a very striking symptom of Hydrothorax

I have heard of a case where there was a stricture at one of the wrists - 325
deglutition is also performed with great difficulty and pain. If the effusion
is more on one side than the other, the patient will lie on that side, and uniform-
ly there will be more or less paralysis of the arm on the same side. When there is
a very large collection of water in one cavity only, that division of the thorax will
to the eye appear fuller and both the patient and the practitioner will be sensible
of the fluctuation. When the effusion is in the pericardium, the sense of fullness
and uneasiness is confined to that part and the action of the heart is more distant
than in the usual forms of the complaint. This is apt to be confounded with other
diseases as Emphysema, Angina Pectoris, Asthma, organic diseases of the
heart, and its great vessels, and also some complaints of the stomach. Two cir-
cumstances have been pointed out, by which we can ascertain the existence
of an effusion. Prometheus who wrote on the diseases of the heart says that by
striking on the sternum, ^{when the pectus is erect.} fluctuation is always rendered evident; and Rich-
at observes, that by pressing the abdomen, ^{when the pectus is in a horizontal posture,} you will uniformly aggravate
all the symptoms, and especially that of suffocation, the reason is evident.

Hydrops Pectoris may be produced by all the usual causes of dropsy. It is more
usually it is seen in persons of debauched and intemperate habits, and particu-
larly in old people. It is often a part of universal dropsy, and is sometimes
the consequence of Pneumonic inflammation, and especially Asthma, or
other pectoral affections.

After death the lungs appear diseased, water in one or both sides of
the thorax, cellular texture, in the pericardium.

In its Treatment we are to be guided by the general principles al-
ready detailed, when treating of the other forms of dropsy, and with some
exceptions we are to employ similar remedies. Like those it may occur in

Part: Emet. and nitre. after which, Active diuretic -

- ① This treatment confined to those of a
vigorous constitution

a Tonic or Atonic state of the system. But the cases which I have seen 329
have almost universally been highly inflammatory. In the first instance as
clearly shown by the pain in the chest, the pulse, pain in the head, and blood
drawn. Such appearing to be the fact no one can hesitate as to the proper treat-
ment - It is in this city the universal practice, under these circumstances
to reduce the system by V. S. nor do we limit ourselves to a single op-
eration. It is often to be repeated - but as the pulse in this disease is usu-
ally full and active, continuing strong even to the last and appar-
antly indicating the necessity of the lancet: we must therefore judge from
other circumstances of the extent to which we may urge the direct de-
pleting remedies. After general bleeding much advantage will be gained
from the employment of cups ^(between the shoulders) to the thorax. These are more effectual when
applied to the back than to the sternum or side, leaving the breast for a per-
petual blister. By the eminent physicians in this city, the treatment is
almost universally confided to the topical depletion. Then we may
recur with signal advantage to Blisters. They ought to be large
enough to cover the whole side, and as one heals another should be applied. Thus cures have
again and again been accomplished. The disease however not yielding to this plan,
it will then be proper to recur to the diuretic articles. As the combination of Squill,
and Calomel. These produce effects which cannot be accomplished by either al-
one. Cal. gr. j. Squills gr. ij. given three times in the 24 hours. The mouth becoming af-
fected by the mercury is always an auspicious sign. As soon as a salivation
is induced the Dyspnoea, oppression and other troublesome symptoms very gener-
ally moderate, or are relieved. Much of late years has been said of Digitalis.
But the more I try it, the less confidence I put in it. This I suspect is the result
of the experience of physicians in this place. But certain I am it is of less val-
ue here, than in any of the other forms of dropsy; indeed so frequently have I
been disappointed, that I now seldom resort to the digitalis of those who

Digitalis is however sometimes useful. Dr. Physick, Dr. Horner, and myself ordered it to a gentleman lately, who was speedily relieved by it.

Colchicum Autumnale useful.

Better adapted to *Hydrops pericardiacus* than
Hydrothorax or any affection
 of the heart imitative of it. The
 case to which I have referred may
 have been one of those affections.

Emetics urged to nausea; very much
 recommended.

disagree with me on this point is Dr. Hamilton, who has the greatest 32)
confidence in our medicine. He observes that a collection of water in the
cavities of the thorax, is always a disease of great danger, by impeding the
action of organs essentially necessary to life, and if not removed, must prove
fatal. But that this removal may be obtained, experience by which alone
I am guided will not allow me to doubt. Since I have used this article
I never met with one case however advanced or desperate, but what was
speedily relieved by it. Indeed, so extraordinary are its powers, beyond
what could have been expected that I am almost certain in accomplishing
a cure by its agency. Happy would it be for humanity if one half of this
account were correct; and it is strange that such a mind should have
been so deceived. Actuated by the liberal spirit of enquiry, Dr. Ferriar in-
stituted a series of clinical experiments, to ascertain the most certain
and active diuretic. The result of his investigation is, that the following
combination is the most active and certain means of evacuating the
water in dropsy. R. Spt. e nit. - ʒij.

Tr. Scill. ʒij. Oxy. Colch. ʒij.

Ext. Platini ʒij

Syrup Rhamni — ʒij m. ʒij to be given 3 or 4

times a day. This he considers as exceedingly efficacious as a mere evac-
uant, in all the forms of dropsy; particularly in effusions into the chest.
I have but a narrow experience with it, yet such is my confidence in
Dr. Ferriar, that I do not hesitate to prep the above formula on your recollection. It would seem reasonable to suppose "a priori" that Emetics from their
known efficacy in diseases of the chest should be beneficial; they have ac-
cordingly been tried, but are now generally deserted; except merely to remove
phlegm, they are productive of no advantage. They do not promote absorption,
and often even enhance the difficulty of cure. Nor is much confidence

Purging in Hydrothorax is useful, and particularly in women. They possess a greater tenacity of life than men, & hence bear purging much better.

Senna and Carb. of Potash Combined.

- ② Most of the Expectorants are also diuretic.
- ③ Nature generally aims at expectoration. Injections have the power of suppressing the effusion for a few days, but Mercurials.
- ④ As the last resource I recommend tapping the thorax. The French recommend this operation with on the strongest terms. Be certain of the presence of water before performing the operation. Fluctuation ^{by percussion} the only certain sign. It may be in the pleural cavity, also in the mediastinum. (Recommended)
- ⑤ Dr. Johnson about to die of dropsy was cured by fasting. As you reduce vascular action so are the powers of the absorbents invigorated. It is only by a low vegetable diet we can keep down the tendency to effusion. After tapping the effusion generally returns.

placed in Purgatives. It is a curious fact, but one which is certainly 331
true, that urged to any extent, evacuations from the bowels are hurtful
and often very injurious in cases of the lungs. Even in acute diseases of
the thorax purging cannot be borne, and in all chronic cases, particularly
in the one we are considering the system speedily sinks from the occurrence
of a diarrhoea, which instead of promoting absorption and carrying
off the effused fluids, increases the dyspnoea and other distressing symp-
toms. Nevertheless a soluble state of the bowels is always requisite. In de-
scribing the treatment of this disease, let me press upon you the importance
of considering it, at least in its early stage as highly inflammatory. Hence
demanding O. S., and local depletion by Cups, &c. Where purging is to
be used, the drastic articles are to be employed, as Gamboge, Croton oil,
Elatium, &c. 1 gutta of Croton oil - 7/16 of a grain of Elatium - every 2 hours

① Expectorants next to be mentioned as the squills, Senega, &c.

Lately the Wild Lettuce has been recommended. Cochium garlic &c

By steadily and judiciously pursuing the plan already directed, we
should find that this disease, instead of being incurable, would be as man-
ageable as any other forms of dropsy, and that it would soon cease to be
one of the "Ophrotricia medicorum!" ⑤

As to the regimen proper for dropsy this must vary according to the dif-
ferent circumstances of the case. In the active & febrile forms of the dis-
ease it should be low and even, total abstinence for a day or two has
been of service; even cures have by these means been effectual by emptying
the vessels, the powers of absorption is invigorated. But in atonic dropsy we
must proceed on an opposite plan, and by a nourishing diet endeavour to sup-
port and restore the strength of the patient, Eggs, calves foot jelly, oysters, &c.

No difference of opinion has existed as to drinks. That diuretics have
their action promoted by the free exhibition of drinks, there can be no

a case related by Duverney where by
successive punctures he succeeded in
making a perfect cure,

④ Erysem.

When the part is very low whiskey and water may be allowed in cases of
drunkards particularly.

Avoid all the exciting causes -

⑤ Tonics, chalybeates, &c. - best Bark, and vegetable bitters generally.

doubt. But doubts have been expressed whether they are proper; as some³³³ times instead of purging off by the natural emunctories, may be effused into some of the cavities, and thus give rise to dropsy. An apprehension of this has strongly prevailed, that patients have been enjoined a total abstinence on this point; and thus it is said have been cured. But this will not bear a rigorous scrutiny; the facts are very rare, and the numerous examples in which they have been useful have led to the total abandonment of this painful treatment. Most probably Drinks promote the urinary discharge & relieve the patient while abstinence from them produces inactivity of the Kidneys (see Cullen). The practice is conformable to this principle. We invigorate the secretory organs by the copious use of diluent beverages. Common water answers very well: sometimes it may be rendered more active by the vegetable acids; those which are preferable are Lemonade, vinegar, cider, wine, &c. An infusion of the Juniper berries I have found very useful, seaberry is one of the best I know. By these mild means alone, cures have again and again been accomplished. Baker, Cullen, and many others acknowledge the propriety of indulging the patient in as much drink, as he desires. The point is now incontrovertibly settled; that it would be superfluous in me to enforce it, by any theoretical deduction. When they excite effusion they will be restrained by every judicious physician. The remedies which I have detailed are all calculated to evacuate the water, and they will also generally be found sufficient to do away the disposition to a reaccumulation; but sometimes they have not this effect. The means calculated to fulfill this indication are either local or general, and are to be adapted to each form of the complaint. On Anasarca when this is a local complaint, the reproduction of water may be prevented by frictions, also by tight bandaging by means of a roller, or what is sometimes more convenient a long stocking. It has also been strongly recommended to use topically a cold bath 2 or 3 times a day. I think that I have derived considerable utility

334 Friction very useful - Cold should not be applied in case of hydrothorax

② Iucapia, Chamomile, Columba, Gentian, &c.

The change in the treat: has reduced the mortality from one in 3 to 2 in 7.

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tidity from this remedy. To prevent the recurrence of ascites, we may also resort to compression by the laced jacket, or a flannel roller. The application of colds has here also been recommended, but in this case it is more ambiguous & equivocal. It may sometimes be employed with advantage, but not always, & not much is to be expected from it, where general remedies do not avail. The most effectual plan is the exhibition of Tonics, as combinations of the Bark & the Chalybeates. If these do not answer alone, and there be a strong disposition to a reaccumulation of the fluid, we should produce a total change in the system by Mercury, so exhibited as to act as an alterative, when the debility is too great for this, the Nitric acid may be employed with unequivocal utility, nor are we to overlook exercise, as a most important remedy, commencing with such as are suited to the house or chamber, then walking, sailing, riding, &c. which will not only prevent but often cure the disease. By sawing wood, I have known recoveries frequently accomplished. Dr. Rush was in the habit of relating an anecdote to this point. That he was once met in the street by a person of an interesting address, who thanked him for the great cure he had effected. The Dr. not being sensible that he had ever seen him, asked for an explanation. The man observed that he was a native of Virginia, that he had been affected with an universal dropsy, which proved very obstinate, that he was induced by the great reputation of Dr. Rush to come to Philad^a, the journey from his circumstances he had to make on foot, soon after commencing it his swelling began to diminish, and before he had reached the city he was perfectly well.

A due regulation of diet of the greatest importance.

By another least submissive to medical treatment - Ascitis next, and Anasarca most so - Dr. Chapman says he has been more successful in By another and than Ascitis -

Head much enlarged. - Congenital. - Some have lived to 5-10-15-20 to 30 years of age with enormous heads, and still retained all their faculties, and perfectly transparent, a lamp shining thro it.

Gall and Spurzheim says the brain is a perfect sack or membrane. They unrolled it, so as to exhibit it as a perfect bag. Now the water effused in Hydrocephalus, only unravels it as they did. I do not doubt but it is true.

and consequently a greater determination of blood to the head.

Externus. between the integuments and cranium. - ^{anasarca then} rare.

Internus between the membranes - convolutions of the brain - in sacks.

Acute form - called lately Hydrocephalus capitis.

between 2 and 5 years old. and according to Morgan girls more frequently than boys.

By no means uncommon to find it follow autumnal fevers - Cholera, and other bowel complaints. Catarrhal fevers, &c. The child in catarrhal fevers. when the mucous tissue is inflamed, is sick at stomach, stupid, and listless. terminating in effusion of water into the brain.

Cholera where it runs a long thin screen is almost sure to terminate in it. The suppression of discharges at Puncta Capitis Lactaria, discharges from behind the ears &c. are very often the cause of this disease.

Hydrocephalus Internus.

This disease is generally clasped by nosological writers among the dropsies, but I think very improperly. It is a disease of comparatively modern origin, and may be divided into Acute and Chronic. It invariably originates in acute inflammation, and Children are more frequently the subjects of it, though sometimes it attacks the old, and girls about the age when menstruation commences, owing to the uterus refusing to perform its functions in secreting the menstrual fluid; a translocation of action from the uterus to the brain. (There are two causes assigned for the frequency of this disease in ~~the~~ children. 1st The disproportionate size of the head in early life; and 2nd Blows, falls, &c. to which children are peculiarly liable. But whatever effects these may produce, I think that the state of the Chylipoietic viscera is more commonly the cause of the disease.)

It is now determined that the causes of this disease are such as act directly on the brain. And 2^d those which act ^{indirectly} on that organ, through the medium of the stomach and digestive organs. Of the first kind are blows, falls, scurviocities, concussions, contusions. Of the 2^d are worms, autumnal fevers, sordeg, constipation, and those causes which generally induce fever, &c.

It makes its attack in different modes, ^{often in a puerile} generally however it commences with the ordinary signs of fever; such as pain, nausea, vomiting, languor, pain in the head, hot skin, unnatural stools, ^{white, oily, green} chills, furred tongue, and a tense or corded pulse. ^{high colored urine, - tumid abdomen - soreness or pressure - flatulency -} The fever is Remittent, with some abatement in the morning, and exacerbation at night, dark line under the eyes.

Hydrocephalus Internus is generally marked by three distinct stages. 1st Increased sensibility, in which there is great aversion to sounds and light; there also attends this stage watching, languor, inactivity, loss of appetite, pain in the head, nausea, and vomiting, a hot dry skin, flushing

The recumbent posture is the only one which they ^{will} assume,

① The spasm affecting the limbs of one side only,

② Sedition - tossing the hands one over the other - Convulsions - defecation - respiration difficult - involuntary discharges of urine & feces - temples sunk - nose contracted

Cough is a common attendant and generally remarked - by practitioners

In chronic form of cholera morbosus or trochil Post mortem - Effusion in the ventricles - 20. of the peritoneum

Sometimes thin, pellucid - coagulable or otherwise - Sometimesropy - from 2 to 10 ounces - The substance & membranes filled with blood - Thickening of the tissues - The substance soft, schiz.

rores, &c. - In some cases no derangement can be found in the substance or membranes of the brain - Vascularity increased - Some persons have died of cerebral symptoms, when all the marks of disease were found in the chyliferous viscera.

③ Sensitive symptoms. Inclination to vomit - Strabismus - How irregular pulse impeded & glut - Constipation - Stupor -

Causis - not congestive. Dr. Rush probably right -

I think the action a peculiar one as we cannot understand -

Similar to other affections, modified only by the nature of the organ

of the face, head ache, throbbing of the temples, quickened pulse, pain in the back 39
of the neck and sometimes irregular fever; and these symptoms have an ex-
acerbation towards evening, but are milder in the morning. 2^d stage. There
is diminished sensibility, dejection of countenance, loss of appetite, pain
over the eyes, stupor, heaviness, a propensity to a recumbent posture, the
child lays his head on his mothers lap, aversion to being moved, nausea,
and Constipation. ^{pulse slow} The child screams out in its sleep, is much disturbed,
the pupils of the eyes are dilated, and there is sometimes double vision,
there is stupor and squinting, and sometimes the patient is comatose, the pulse
becomes slow and unequal, and the stools are watery, and of a clay colour,
mixed with green scybals. The 3^d stage is paralytic. In this stage there
is a rolling of the head, with ^{dilated or contracted pupils - squinting -} spasms and convulsions, the pulse returns to a
febrile state, and becomes diminished in volume and ^{irregular} ~~freed~~. Though
these are the most ordinary signs of Hydrocephalus Internus, yet we cannot
expect them to be always regular, and in an increased progress.

The diseases with which Hydrocephalus internus may be confounded is
worm fever, or Febris verminosa. But by calling to mind what I observed
when treating of that particular form of fever, you may in general easily
distinguish one from the other. But in the worm fever the exacerbation is
always attended with stupor, a heavy drowsiness, pain in the stomach,
and great uneasiness in the bowels; the remission is attended with a mor-
bid vigilance, there is also an affection of the voice, or sometimes a total loss
of speech. ^{These latter are conclusive} The proximate cause of this disease consists in an augmented
morbid action of the brain or some derangement in the organic structure
of that viscus, from morbid causes acting on it. Dr. Rush thinks it a milder
degree of what produces Phrenitis. The collection of water which takes
place is only the effect of this pre-existing morbid action, and not the disease
itself, as is supposed by some European writers. (see ^{Chinese} ~~European~~ on Hydrocephalus)

340 in which it is situated - The vessels take on a morbid secretory action, by w^{ch} they throw off a peculiar fluid - sometimes gelatinous, in It is not serum, properly so called - The same in Anasarca - Ascitis, & hydrops, &c. All the symptoms of effusion may appear, without death taking place, or there being any effusion in the brain.

Dr. Huber remarks that when the effusion is on the back of the neck it is almost always a fatal sign, also a copious effusion of pellucid urine, denoting a decay of cerebral energy, also a hyperemic fatal effusion of the spinal vessels as per hot water, &c. Professor ^{Monroe} says it is incurable - Dr. Rush says it is ~~in~~ - ~~curable~~ - When the effusion has taken place it is incurable. But early we can prove successful - deflection from the morbid, very favourable sign none are drop

Bleeding is not of as much service as might a priori be supposed - But long continued and active purging is far superior, both in the early and second stage - no better remedy - Emetics - in oppressed and irritated stomachs, useful - useful in the same way as in Tic dolo^{reux} - headache - apoplexy. by revuls in draws blood from the head & more equally distributes it to the other parts. Next applications to the head. cups - Leeches - Blister - Cold after shaving the head. The blister sh^d cover the whole cranium, and remain on 24 - 36 - at 8 hours, until supuration of the scalp is induced. Dr. Huber - shave the head some hours previous to the application of a blister ^{to prevent a chancre} pathology a subacute inflammation of the arachnoid membrane, &c. &c.

This disease may exist a long time without destroying life; and it 341
may run through all its stages without there being any effusion whatever
in the brain. This disease undoubtedly commences frequently in the dis-
ordered state of the stomach and not in the brain. The truth of this position
may be proved from the symptoms which I have enumerated; all of
which denote a depraved condition of the digestive organs, as the nau-
sea, vomiting, ^{constipation} and the peculiarities of the excretions. appearance on
dissection - Causey.

Treatment. Our success in the treatment of Hydrocephalus Internus
must vary according to the different conditions of the brain. If we attack it in
the early stage, before the effusion takes place with vehement means, it may in
general be cured. The reason why the European practitioners fail in the cure of
this disease, is because they consider it to be owing to an effusion of water in
the brain, and not a morbid action. From the pathology of this disease as
I have given, it is very evident that the leading indication must be to
subdue arterial or inflammatory action. For this purpose v. s. is by far the best
means, and the quantity of blood to be taken, and the frequency of the
repetition must be directed by the symptoms. In general it will be neces-
sary to bleed very copiously, at the same time the head should be shaved,
and Cups, leeches, or Blisters applied. Copious evacuations from the stom-
ach and bowels should be procured by means of Emetics, and active pur-
ges. The best Cathartic for this purpose is calomel followed by a
decocotion of Senna. In general purgatives are preferred to Emetics. After
arterial action has been subdued sufficiently a large blister should be
applied to the scalp and continued on untill a suppuration is completely
established, which will be effected in 48 hours. By pursuing this plan of
treatment a cure may most commonly be effected. But when the dis-
ease refuses to yield and continues to progress rapidly at the expiration

Bleeding by leeches or cups behind the ears is the very best mode, Stimulant pediluvium and cataplasms, with cold to the head, purging where worms are suspected an infusion of scum & spigelia.

- ③ Dr. Lawrence has attempted to show the existence of Lymphatics in the brain—

Diaphoretics, Dover's powder & vapour bath substituted for the warm bath, as the latter, causes a swelling of the head,

The practice of salivating in this disease was commenced by Dr. Dobson in England.

- ④ We continued this course for 14 days when all the Hydrocephalic symptoms subsided. She recovered and never has had a return of the disease. It was my own child.

of 14 or 15 days, the symptoms sometimes all suddenly subside, and 343
promises a hope of a speedy recovery, but this is exceedingly delusive.
This abatement of the symptoms is owing to an effusion of water into the
ventricles of the brain: but in a short time the disease returns with redou-
bled violence, and soon carries the patient off. It has been said that when
the effusion has been known to have taken place it is unnecessary to do any
thing more. Certainly there is very little absorption of the brain, and if lymphatics
do exist in it, their action is exceedingly feeble. But gentlemen we
should never abandon our patient. When the effusion has taken place,
the best remedy we can prescribe is mercury, given in as large quan-
tities as the stomach will bear, and at the same time we should rub it
into the system through every pore of the skin. Mercury has been found use-
ful in every stage of the complaint, but it is after the effusion has taken
place that it exerts its greatest powers. Three cases of this disease I have
cured after the effusion had taken place with mercury. One was the daugh-
ter of a gentleman of this city, about 6 years old. In this case 8 $\frac{3}{4}$ lbs. of the
strongest mercurial ointment was used. A large quantity was rubbed on
the lower extremities, and every few hours the child was wrapped in flan-
nel smeared with it, such was the quantity used that the atmosphere of
the room became so impregnated with mercury that my watch which was
lying on the mantelpiece only for one night became completely coated with
mercury. I am happy to state that the disease terminated favourably.
A child of Dr. Wistar was cured in the same manner.

In making up our minds on the prognosis of this disease we must be gui-
ded by the symptoms. If there is pain in the neck, dilatation of the pupils, pul-
sile urine, and other morbid symptoms, the termination will be un-
favourable,

The continuation of Hydrocephalus Internus is generally about 3

(7) Tarsus all times beset the reverse of the ^{unfavourable} are the subsidence
of vascular action with copious discharges from the nose
with sneezing with retention of urine

In acute Hydrocephalus I do not know of any medicine
of any avail. They must be treated by the surgeon for an account
of an operation for the disease see *Medico Chirurgico Trans*
which terminated successfully

weeks. It is a matter of great importance to attack the disease 345
in the early stage with vehement depleting remedies, as thus we pre-
vent the collections of water, but if the disease has arrived at its se-
cond stage, we must employ mercury in large quantities; this is the
only chance to preserve life

Hydrocephalus Internus is often a secondary disease, arising
from a scrofulous diathesis, requiring a different mode
of treatment. The disposition is frequently connected
with a disproportionate form of the head - The disease
is frequently hereditary in families. And instances are
mentioned by authors of death occurring to several
children of the same family *symptoms a dry harsh
skin hoarse bowels.*

This form of the disease is generally incurable
The chief reliance ^{in the inflammatory stage} is to be placed in active purging
afterwards by large doses of *colomel & squills* or *digitalis*
but I have never seen any good from them
and especially from mercury

A disemulation to be raised or to set up in the
early stage of the disease with contraction of the pupil
& coma in the latter stage of the disease with involuntary
discharge of urine (D)

Diseases of the Muscular System.

I now proceed to diseases of the muscular system, which includes the muscles and their appendages, the fascia, aponeurosis, tendons, &c.

The first to be noticed is **Gout**. This is a painful affection, commencing primarily in the stomach - but displaying its effects chiefly in the muscles. According to the violence in which it appears it is called tonic or atonic, regular or irregular gout. When in the extremities it is called podagra.

Gout assumes such a variety of symptoms, that I must refer you to authors for its history. Much controversy has existed as to its pathology. I have for a long time thought it was a gastric affection. It occurs chiefly in debauched habits, in persons worn down with care and anxiety, and in those who indulge in inordinate quantities of food or drink; and also in some from an hereditary predisposition. The calculous affections in the bladder, and those which are found in gouty patients, are considered as the same by the chemists.

It has been universally supposed that all we can do is to palliate this - but cannot have any expectations of a radical cure. All that can be done is to conduct the patient through the paroxysm, and by a certain diet to break the regularity of its occurrence; and these therefore form the two chief indications.

It generally occurs in persons of robust make, of full and corpulent habits; and of an inflammatory diathesis. Sometimes it attacks the

old and infirm; women, and even children from inheritance. It has 349
been customary especially among the Europeans to despair of affecting
any thing in these cases, and merely to order the patient to envelop his
limb in flannel and to keep himself quiet. Practice so inert could
only arise from a want of confidence in the resources of our art, or an
improper view of the nature of the disease. My experience is directly the
reverse - It has taught me fully that as much can be done in the par-
oxysm of the gout, as in any other inflammatory disease whatever.
The most efficacious method of proceeding is by active and contin-
ued purging. This is a very ancient practice, and prevailed very
universally till the time of Sydenham; who condemned the practice
purely on theoretical principles. He considered it as an inviolable law
of nature, that the morbid matter should be eliminated by the skin, &
that Emetics and Cathartics would only serve to bring it back. His au-
thority and practice here proved very injurious. I however consider it as a
disease of the alimentary canal, as it occurs always after symptoms
denoting disorder of the stomach and bowels, as flatulency, acid eruc-
tations, indigestion, depraved appetite, nausea, a sense of heat, a con-
stipation or lax state of the bowels. It may appear singular that I
should place the situation of this disease in the bowels, when it appar-
antly belongs to the extremities. This I have been led to do by contem-
plating the above symptoms; but have placed it among the diseases of the
muscles, as its effects are there chiefly displayed. Whether I am cor-
rect or not. as to the pathology of Gout, the practice deduced from it
is perfectly sound. For several years I have resorted to purgatives, and
with the most unequivocal advantage. After a free purging has
taken place, the pain, irritation and swelling subside, and the par-
oxysm quickly passes off. It is often necessary to repeat the purge fre-
quently -

quently - although one may afford great relief, yet a lasting im- 351
provement is only to be made by their free exhibition. I exhibit them every
other day, and prefer the Rhubarb and Magnesia in combination. The
dose to be proportioned to the age of the patient and the violence of the dis-
ease. If this does not uniformly succeed, it does so, more frequently
than any thing else. As my practice differs from that of most others, it
may be expected that I should state the grounds on which I proceed.

My practice is founded both on reason and authority. Admitting that
the paroxysm is preceded by symptoms of an irritated condition of the
stomach and bowels, no one would deny that these symptoms form ex-
actly that group, which common experience teaches to be best treated
by purgatives. For whatever reason we should refuse to administer
in gout these remedies which would be directed under precisely simi-
lar circumstances in other diseases, cannot be very satisfactorily ex-
plained. Besides gout is often removed by the coming on of a diar-
rhoea, dysentery or cholera morbus. This fact did not escape the no-
tice of Hippocrates. He observes that gout is never cured where there
is a constipation, but is often overcome by the providential occur-
rence of a diarrhoea - and he conceives that great advantage is gained by
the melting down of the bowels, by which he probably means cholera morbus.
Mergrove also observes that if a diarrhoea occurs during a paroxysm,
it carries it off, and one advantage of this is that the disease does not re-
turn. Even Sydenham confesses that if we wish to bring back the gout we
must restrain the evacuations from the bowels, in which case the gout comes
thundering back on the extremities. This he considered as necessary, appre-
hending that there would be great danger if it was stopped by remedies.

As to the authorities in favour of this practice, we may commence with Hip-
pocrates and cite all the practitioners till the time of Sydenham. The Quæstio

the Romans, the Arabians, and also the Europeans after the revival 353
of letters, employed and recommended them with a degree of enthusiasm.
They employed the drastic purgatives. prior to the period by which medicine
was cultivated by the Arabs the only purgatives employed were the drastic,
the milder ones were unknown, and we hear of none of the evil effects which
have been so freely ascribed to them, and which have frightened physicians
from this sound practice. But many even at that time did not regard the
authority of Sydenham. C informs us that many eminent phy-
sicians of that time did not hesitate to employ them, and also to recom-
mend them as strong, quick and certain remedies. Sydenham him-
self confesses that they will relieve the patient, but will be followed by dete-
rious consequences. A collateral proof of what I am maintaining is,
that purgatives are the foundation of most of the empirical remedies.

Experiments made to investigate the nature of "Eau Medicinale"
have determined that its effects are best attained by exhibiting our most
drastic purgatives. To obtain the full effects of purging it should be of-
ten repeated and directly pursued. Moderate purging will not answer,
you will always find the bowels full of faeces of a dark brown colour
and uncommonly fatid - these should always be brought away. Con-
sidering the whole, we are entitled to say that Cathartics may safely and
effectually be employed, and that they have for a long time been strangely
and inconsiderately neglected.

Emphatically as I have spoken of the superiority of purges in gout,
I have seen too much of the practice of medicine, to confide exclusively
in any remedy to cure a disease; especially one whose symptoms are so
greatly diversified. My plan here as in other cases is to accommodate
my treatment to the circumstances of the disease; and since every va-
riety of practice is required, it is often necessary to resort to bleeding,

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especially where the pulse is full, or where there is great determination to important parts, as to the head, lungs, &c. I have had cases in which I bled freely, and with as much utility as in Pleurisy - but in gout v. s. is less necessary as purging affords an excellent substitute; one advantage of which is, that the thirst, heat and other febrile affections are quickly removed.

No little difference of opinion has prevailed as to the propriety of sweating in gout. Believing that there was certain morbid matter to be evacuated by the skin, the Homoeopathic pathologists resorted very freely to diaphoretic measures and with advantage. Next to purging I consider nothing equal to sweating in gout. Nature clearly points out this plan, as well as that of purging; as a paroxysm always goes off by one or the other discharge. In all cases therefore after the violence of the inflammation has been abated, we may and should resort to active and frequent purging, and afterwards to diaphoretics. But when the constitution is broken down by excess, or where there is much debility we must administer cordials and invigorating articles, as the Carb. ammon., wine whey, hot toddy, &c. As part of the same general plan of treatment we recur to the use of diuretics. Not unfrequently we meet with cases of gout, which are spontaneously cured by a discharge of urine. The Kidneys appear to be then one of the excretories by which the disease shews a tendency to pass off. The milder diuretics should be chosen. I have usually found the Apts. c nit. very useful, as also the infusion of juniper berries, where something more stimulating is required. Gin and water will answer very well.

Such are the general remedies for gout in its regular form, but we must often direct our attention to the local affections. The pain and agony of a part is sometimes extreme, and imperiously demands relief. Much might be expected from opium, and hence it has been liberally given

by some. I however do not think that much advantage is to be gained 354
from this, and even in some instances it aggravates the sufferings. Blisters so
useful in other cases of local pain, might "a priori" be supposed useful here,
but on trial they have disappointed us and have been forsaken: they have
been supposed also to be dangerous by repelling the gout to vital parts.

I, however, have no such fear, as experience has taught me that sinapisms and rubefa-
cients in general are the best means of inviting gout to the extremities; and of fix-
ing it in this situation. I cannot conceive of a remedy blowing hot and cold
into the same time - this is one of those stipulated sentiments which stuff the
heads of the generality of practitioners. More advantage is to be expected from
Leeches; but these cannot always be commanded, in which case we may
employ fomentations. The best is a poultice of common hops, by which the
tumefaction and anguish of the limb are speedily abated. Fomentations
of Chamomile flowers, and of several bitter herbs are also useful. Recent-
ly it has been said that most benefit is to be derived from the application of
vapour of rarefied air to the limb. This I have never seen, but "a priori"
it promises to be of much advantage. Flannel or cotton should be wrapt round
the limb; but all these means have been condemned by many practitioners
especially Dr. S who, instead of augmenting the temperature of the
limb, considers it as already too high, and maintains that the indication
is to moderate the increased temperature; this he does by cold. Clothes
wrung out of cold water are applied to the limb, or the part plunged direct-
ly into a bucket of cold water. His notions are very peculiar - he believes that
gout is originally a local affection, commencing in one of the extremities, and
that the constitution is affected sympathetically: directly the reverse I hold to
be true - believing that it has its origin in the stomach, and all other parts
are affected thro' sympathy. That cold may relieve there can be no doubt;
but it must be employed with great circumspection and care, as nothing

is better ascertained than that cold, when the stomach is debilitated, or in 359 a state of atony will repeat the gout to that viscus. But in persons who are young and who have the stomach strong, it may be usefully employed, there is no danger and may be used with advantage. If there be any doubts of the state of the stomach, it will be proper previously to apply in the colds, to exhibit cordial articles as opium, vol: alk., hot toddy, &c. After all however topical applications are of little use - they are merely palliative.

The disease is to be attacked by general remedies, and above all by active purging. This by removing the dark and offensive matter from the bowels invariably ~~removes the dark~~ relieves the tension and pain.

With this view we must also notice more particularly the "Eau Medicinale". This was originally employed in France, and has acquired an immense reputation throughout Europe. It has also been partially employed in this country, and I have derived astonishing effects from it. Of its composition we know nothing - its effects on the system are chiefly those of an active purge. In the first case in which I saw it employed, the patient was suffering prodigiously - his limbs were swelled as much as I have ever seen them in this disease - he had also a high fever. At bed time he took 3j. of this article, it soon brought on active purging, by which a large quantity of black fætid matter was discharged. There was great nausea and gastric distress, and a profuse diaphoresis. In the morning he was much better. The next dose acted more leniently, and was followed by a relief from all the symptoms. I once administered it in a case of retrocedent gout; the patient took but one dose which proved completely effectual. I have no doubt that it will prove serviceable in this disease, especially in Podagra. But in the discussions which have arisen in Europe, many practitioners condemn it altogether, and say that it is even attended with fatal consequences - and like the Portland

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powder, it makes fatal inroads on the Constitution. My experience is not sufficiently enlarged to determine this point; but I may observe that I have never seen it followed by any injurious consequences. I know ~~a~~ gentleman of this city who has been in the habit of using it for these eight years. He was formerly very subject to the paroxysms of Gout, but by using the "Eau medicinale", they were overcome, and whenever he feels any of the precursory symptoms, he takes grs. x. or xv. of this medicine, by which the attacks are prevented. But I do not recommend to you an imitation of the practice. Professor Gregory of Edinburgh has totally renounced it. But this I think is running into the opposite extreme. For though by long continued use it may be productive of permanent mischief, yet no harm can result from a dose or two given during the paroxysm. Of late it seems to be pretty well ascertained that the base of the medicine is the Colchicum Autumnale or meadow saffron, the effects are said by those who have gone through a course of experience of the subject to be precisely the same. And a saturated Vinous Tincture of the Colchicum is said to be as efficacious as the French medicine. To this point might be collected much testimony both from the physicians of this city and abroad. It is not only useful in Regular gout, but will be found to relieve many of the distressing symptoms in Irregular Gout. To this almost universal voice in favour of the Colchicum I must in some measure enter my dissent. I have tried it in several cases, in all of which it seemed to exert no influence over the disease. Drs. Physick & Dorsey and many other of my medical friends assure me that the medicine that I made use of must have been inert, and of this I am somewhat persuaded myself, as none of the sensible effects as vomiting,

Purging, &c. did not succeed its administration. On the whole I am disposed to recommend it to you with considerable Confidence.

The dose of the Tincture of Colchicum is a teaspoonful 2. or 3 times a day. Of the Eau Medicinale & the Quantity. The operation of each must be assisted by giving draughts of warm diluent beverages.

When gout is translated from the extremities to some of the Internal parts it is called Retrocedent gout.

Retrocedent Gout.

This may locate itself in the Alimentary canal, Brain, Lungs, Kidnies, Rectum, &c. The stomach is most frequently affected.

There is nausea with vomiting with very painful Spasms; which if not removed prove very soon fatal. This attack may require very opposite forms of treatment: but it is most usual to meet it with the diffusible stimulants. The greatest Confidence is to be placed at first in opium & Ether, afterwards the vol: alk. & musk Sulep; which last is an valuable remedy. In these cases the stomach loses its susceptibility to the action of our remedies, and the dose therefore should be augmented, particularly that of Saccarum. Three or four times the quantity should be given. 100 drops have often been given repeated every half hour or so, but more commonly half the quantity is employed. At the same time we should apply hot fomentations to the Epigastrie region. They will frequently be found in urgent cases to mitigate the pain, tranquillize the stomach and check the continued vomiting. We should here also make liberal use of the Lancet. The practice of letting blood while we are prescribing powerful stimulants, although it seems a contradictory practice, must be resorted, however paradoxical

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Such a plan of treatment may seem it is in most cases our only plan of cure! But much care must be taken and discrimination necessary, when we have recourse to B.S. The pulse cannot be trusted as our guide. For in the most violent attacks when bloodletting is necessary and particularly demanded it is weak and low.

All the circumstances must be taken into consideration especially the degree of probability that the system is capable of reacting.

Bloodletting is habitually directed by me, and many other Physicians in this city in gout of the stomach. Without it many instances occur in which we could not possibly succeed with diffusible stimuli. And if there is not great prostration of strength the lancet will often effect a cure. It is the best of all the antispasmodics. When the paroxysm attacks the Lungs it puts on the appearance of Pneumonic inflammation, or more commonly Asthma and the treatment should be the same as the treatment of these diseases arising from the ordinary causes. When it is fixed on the brain we must resort to bloodletting both generally & locally. Confining our practice to the state of the system we must also blister the head & neck. Punge actively as in paralysis or apoplexy. Gout sometimes seizes on the heart, but rarely producing syncope, or immediate death (suppressing the circulation) It sometimes resembles Angina Pectoris causing the greatest solicitude and apprehension. Unless the attack is a slight one there is no hope and death most commonly is sudden. The cases alluded to died instantly. If we have time for the employment of remedies we must first make use of the Lancet and then resort to antispasmodics. In all forms of Retrocedent Gout you should

remember this one Precept. Steadily endeavouring to invite it back, restore the disease to the extremities by Pediluvium. Impregnating the warm water with cayenne Pepper to render it more stimulating and by sinapisms and Blisters to the part. Nosologists have described a species of Gout which they call misplaced gout. Where the pain, &c. which usually attacks the limbs first attacks some of the Internal parts. It is very irregular in its Location invading the Lungs, Head, alimentary canal, Kidnies, &c. I have met with it as an eruption of the skin, and about the arms, Genitals, &c. There was an old man in the almshouse in whom gout always attacked the penis inducing painful erections almost amounting to priapism. The treatment of misplaced gout should be always the same as Retrocedent gout when the arthritic diathesis prevails in the system. When there is not sufficient vigor in the Constitution to bring on inflammation of the ~~system~~ limbs it is Atonic Gout. We have a Group of distressing complaints, Loss of appetite, Indigestion, Nausea, vomiting, Sour eructations, Cardialgia, Gastralgia, &c. Pains or Cramps in various parts of the body, which are relieved by the discharging of Wind. Constipation or Diarrhoea with griping and Tenesmus, Hyperchondriasis, palpitations of the heart, syncope, asthma, vertigo, apoplexy, Palsy &c. &c.

We must restore tone to the Stomach and invigorate the system. We must employ all our remedies and our treatment must be the same as Dyspepsia and other vitiated Conditions of the Stomach. We must carefully guard against Constipation for which Magnesia, Rhubarb or Sulphur may be prescribed. With this view we must also have recourse to tonics as Steel, Peruvian Bark, and other vegetable bitters. Little will be effected unless the diet be studiously regulated.

The business of the collection of the duties on the
 water works of the city of London is now
 managed by the Corporation of London. The
 Corporation of London is a body corporate
 having a perpetual succession of members
 and a common seal. It is constituted by
 the City of London Act 1862, which
 consolidated the various Acts relating to
 the Corporation of London. The Corporation
 is divided into four wards, each of which
 elects a certain number of members to
 form the Council of the Corporation. The
 Council is the governing body of the
 Corporation, and it is the duty of the
 Council to manage the affairs of the
 Corporation in accordance with the
 provisions of the City of London Act
 1862. The Corporation is also responsible
 for the collection of the duties on the
 water works of the city of London.

Indolent and sedentary habits abandoned: active ones assumed and a proper degree of exercise taken. As to diet I have little to add to what I said when treating on the subject of dyspepsia. It should consist chiefly of milk with lightest kind of solid food. As to drinks, Malt Liquors are universally allowed to be injurious. A moderate quantity of the light wines (as Madeira) may be allowed. To relieve spasms of the stomach headache, &c we may give the a Warner Cordial, the last of which Besides it agreeable stimulant effects gently opens the bowels. Completely to eradicate gout from the constitution is perhaps not to be expected but by a proper course of living; and a careful avoidance of the exciting causes. The paroxysms may be put off or greatly mitigated. Cullem directions on this head are so sound that I shall content myself with recommending them to your attention. The well timed observation of alkaline matter has often been found to put off the paroxysm. When sensations of acidity has been felt in the stomach of gouty persons some of the alkalis or magnesia should be given and it will obviate the attacks, or when admonished by any of the precursory symptoms a purgative or an Emetic should be taken and it will often be productive of the same benefit. Judge Cooper informs me that he has for some time past prevented the attack of gout to which he is subject by a pint of new milk taken whenever the premonitory symptoms made their appearance obviating the recurrence of the paroxysm. You will perceive that I have not suggested any thing new in gout, but I have treated it with the remedies in common use in other diseases. We have been too long accustomed to consider it with a kind of superstition or as particular & peculiar in its nature, and differing from all other diseases, & hence have been afraid to contend with it. The first step towards reformation of our practice in this complaint and the attainment of a more successful mode of treatment must be to rid ourselves of this timidity.

Diseases of the Genital organs.

I pass on now to the diseases of the genital organs. Before however entering upon these I wish to give you a short account of the nature and treatment of Calculous affections. Of the symptoms of Calculus I shall say nothing, as you will find these detailed in Cullen and most practical writers. What is the cause of the lithic diathesis or that peculiar state of the system which favours the formation of the calculous concretions is not satisfactorily understood. Its connection with gout is obvious - The latter depends on a debilitated state of the stomach produced by certain habits or modes of living; as the sedentary habits of the student. The voluptuous indulgences of the luxurious or the debauchery of the more depraved. From the analogy to Gout; not much, however, is added to our knowledge of the calculous diseases. The origin of the one as well as the other is shrouded in an hitherto impenetrable obscurity. To me however it appears that the first link of these diseases which form the scourges of our race and the reproaches of our art Commences in the stomach. It is now generally conceded that gout arises only from a peculiar matter generated in a depraved state of the digestive organs. This is not wholly gratuitous as will hereafter be shown. Nor is it less true that the matter is taken up and thrown into the bladder and thus forms the foundation of gravel and other calculous diseases. Of this there are many proofs - one of the most conspicuous is, that

Gouty and calculous concretions afford on an analysis nearly the same results. Chemistry had no sooner entered the science of medicine than it began to exercise its ingenuity in explaining the origin and nature of calculi; and however unsuccessful it has been in these investigations, it is nevertheless ascertained by accurate analysis that the substances which enter in their composition and the agents which operate on them out of the body.

The substances of which calculi are composed are first uric acid. 2^d Phosphate of Lime. 3^d Phosphate of Magnesia & ammonia. 4th Oxalate of Lime. 5th Muriate of ammonia. 6th Magnesia. 7th Phosphate of Iron. 8th Silicia. 9th Urea. 10th Cystine oxides. 11th Animal Mucus. The ingredients enter into different combinations, forming numerous species of calculi. Various arrangements of them have been proposed. The best I think by Dr. Wollaston as being more accurate than any other. He considers them all under 4 heads. First the uric Calculi - Formed chiefly of uric acid. Second. The Fusible Calculi. Formed chiefly of Phosphates of Lime & Magnesia & soda. Third. The Mulberry calculi. Composed chiefly of Oxalate of Lime. Fourth. The Bone-earth calculi. Consisting as might be supposed chiefly of Phosphate of Lime. Endeavours have often been made to discover solvents for these; but they have proved ineffectual. The inquiry has recently been renewed by the French Chemists and with considerable success. The experiments were instituted with a view of shewing the practicability of dissolving a stone in the urinary organs - and they proved 1st That a solution of pure potash and soda so weak that it can be held in the mouth and even

swallowed without injury will dissolve the calculi containing
 uric acid and the urate of Ammonia. Second. That the Phosphates
 are dissolved by the Nitric and Muriatic acids so diluted as to
 be swallowed without injury and as not to prove too irritating to
 the bladder. Third. That the calculi composed chiefly of
 malate of Lime would be destroyed by the Nitric acid and by the
 Carbonate of Lime or soda. It has been contended that these
 act on the stone out of the bladder, and dissolve it; but will not
 do so in the body. I can see no reason why they should not, but
 the few attempts which have been made do not give as much en-
 couragement. This may be owing perhaps to their not being performed with
 sufficient care, as there is nothing which would require more care and
 attention, than the investigation of this subject. I do not know that
 any practical advantage has yet been gained from these experi-
 ments - but these articles are well worthy of trial and probably with
 nice management may be successful. The fact that different species
 of calculi have been dissolved out of the body should stimulate
 us to further exertions. And although no article has yet been
 found by which the stone can be dissolved with certainty in the
 body, yet there have been cases where the stone has disappeared.
 Many of these are recorded by the old writers and not a few in
 more modern times - but it is doubtful whether these recoveries
 are to be attributed to the medicine, or to the powers of nature.
 From a careful observation and review of the experiments made
 and of the cases recorded I believe that calculi have been
 dissolved, but that the means of effecting this end are very pre-
 carious. Of the many difficulties attending the investigation one of

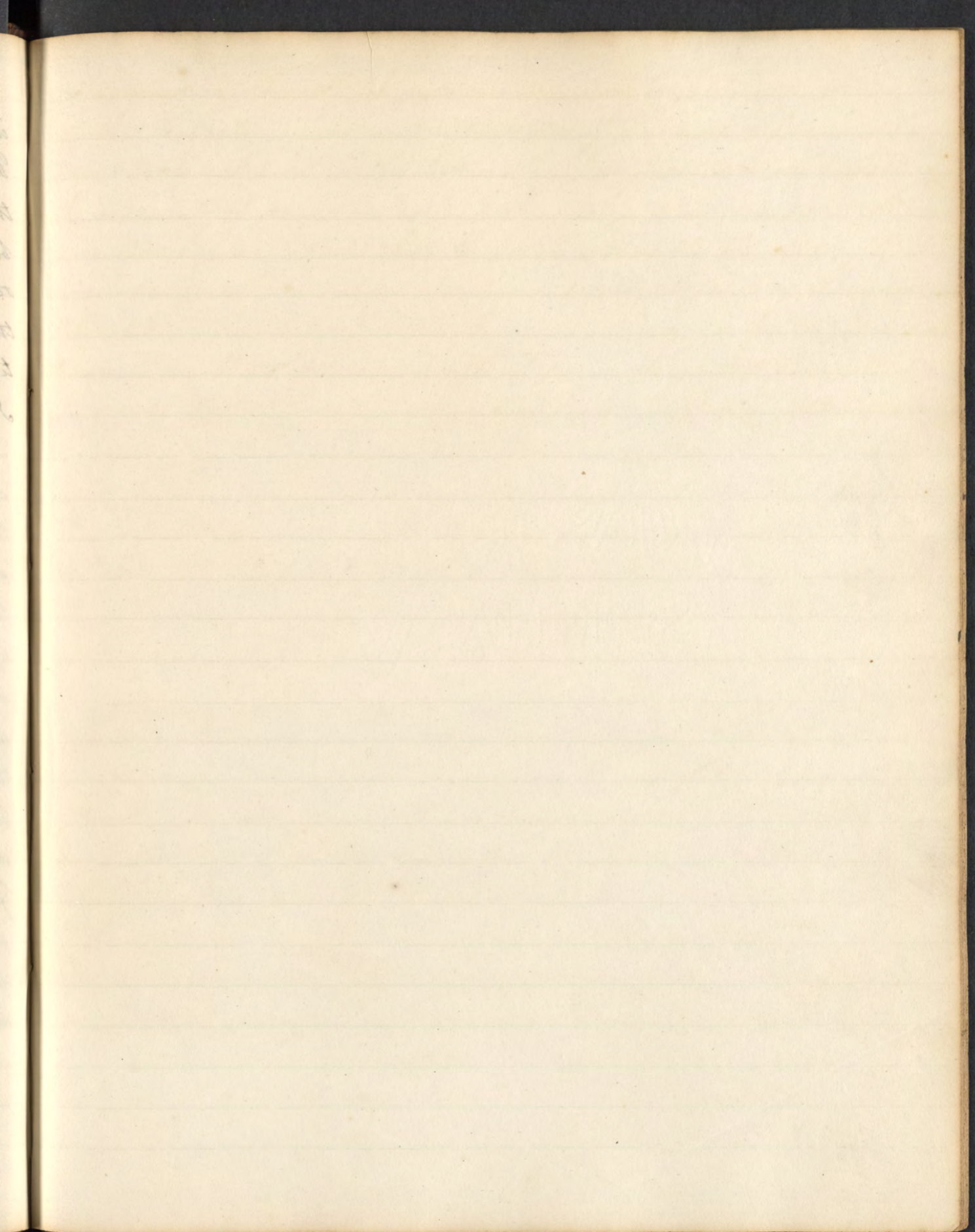
the greatest is the ascertaining the nature of the stone. On this account we must exhibit our remedies altogether empirically, one after the other until the proper one is discovered. My opinion that calculi may be dissolved rests on two grounds. First that it is ascertained that we have solvents for the stone out of the body which may be given in sufficient quantities without injury. Second. That some articles do reach the bladder without having their properties much changed, so that when they come in contact with the stone a play of chemical affinities may take place and the stone be destroyed. This view of the subject is by no means inconsistent with what I have advanced on a former occasion. That no article enters the circulation unchanged. But that by the process of digestion all substances, however different are converted into one homogenous fluid. But I believe that in the several secretions, the excretions, the principles being removed from the sphere of the vital power, have again united by the play of affinities and the substance regenerated. Beside this there may be a direct communication between the stomach and bladder. The fact that certain articles taken into the stomach and passing very rapidly to the bladder, has been long noticed. Nitre, Turpentine, Garlic, &c. have been detected in the urine in 20 or 30 minutes after having been swallowed; which is much too short a time to suppose it had passed by the ordinary rout. Dr. Darwin attributed this to reversed action of the absorbents. This is a very vague and uncertain ~~action~~ ~~of the absorbents~~ explanation and even admitting that such an action took place, it would be the effect of disease and it is contrary to all medical philosophizing to attempt to explain a natural and healthy function by morbid phenomena - But whatever may be

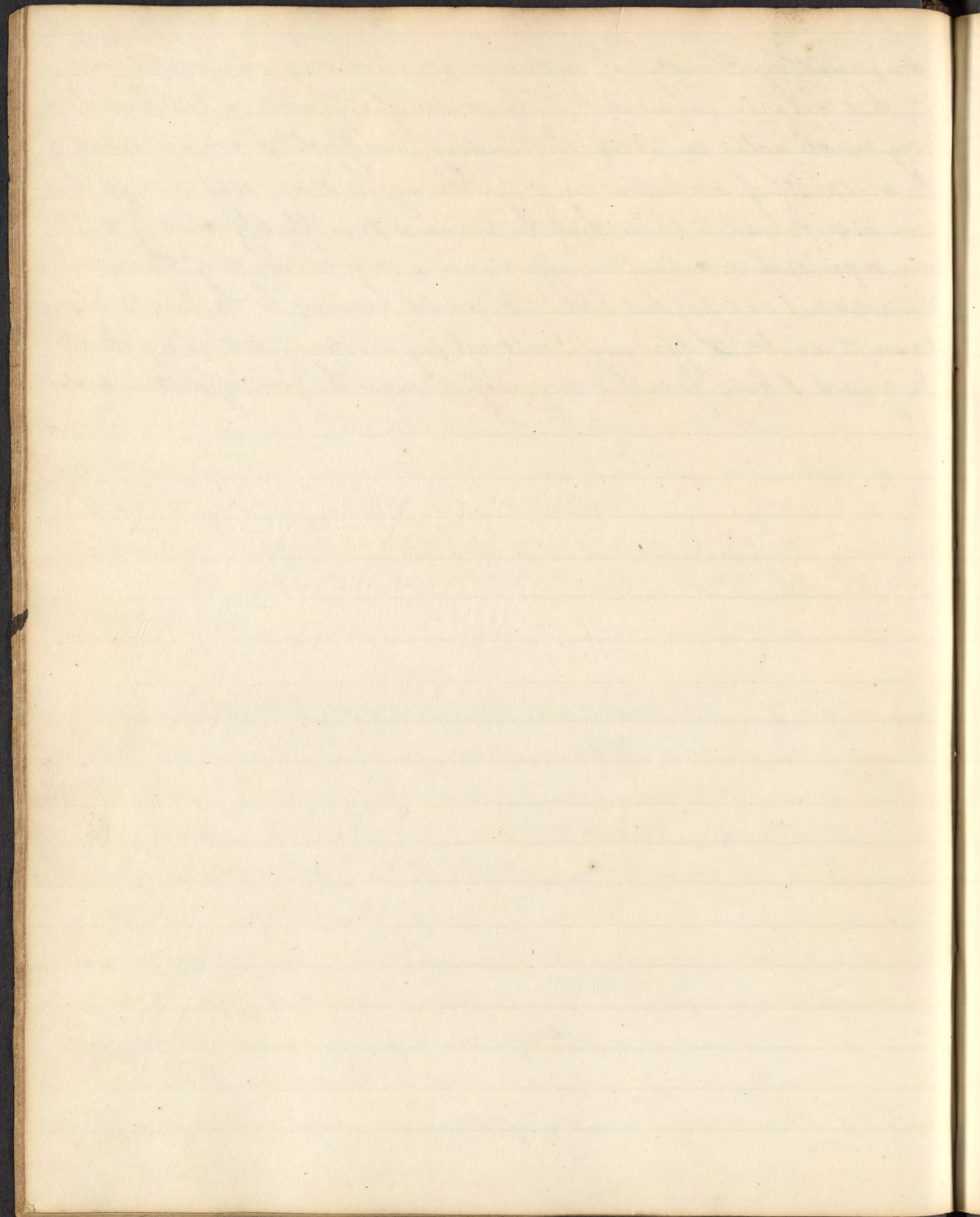
the manner in which this is accomplished; yd of the fact there can be no doubt. It has long been known that although the kidneys be nearly obliterated by disease, yet the bladder will continue to be filled. Dr. Darwin tied the ureter of a dog, and notwithstanding this the animal continued to make water for several days. This is not urine as I believe the urine to be a peculiar secretion, to be accomplished by the kidneys only.

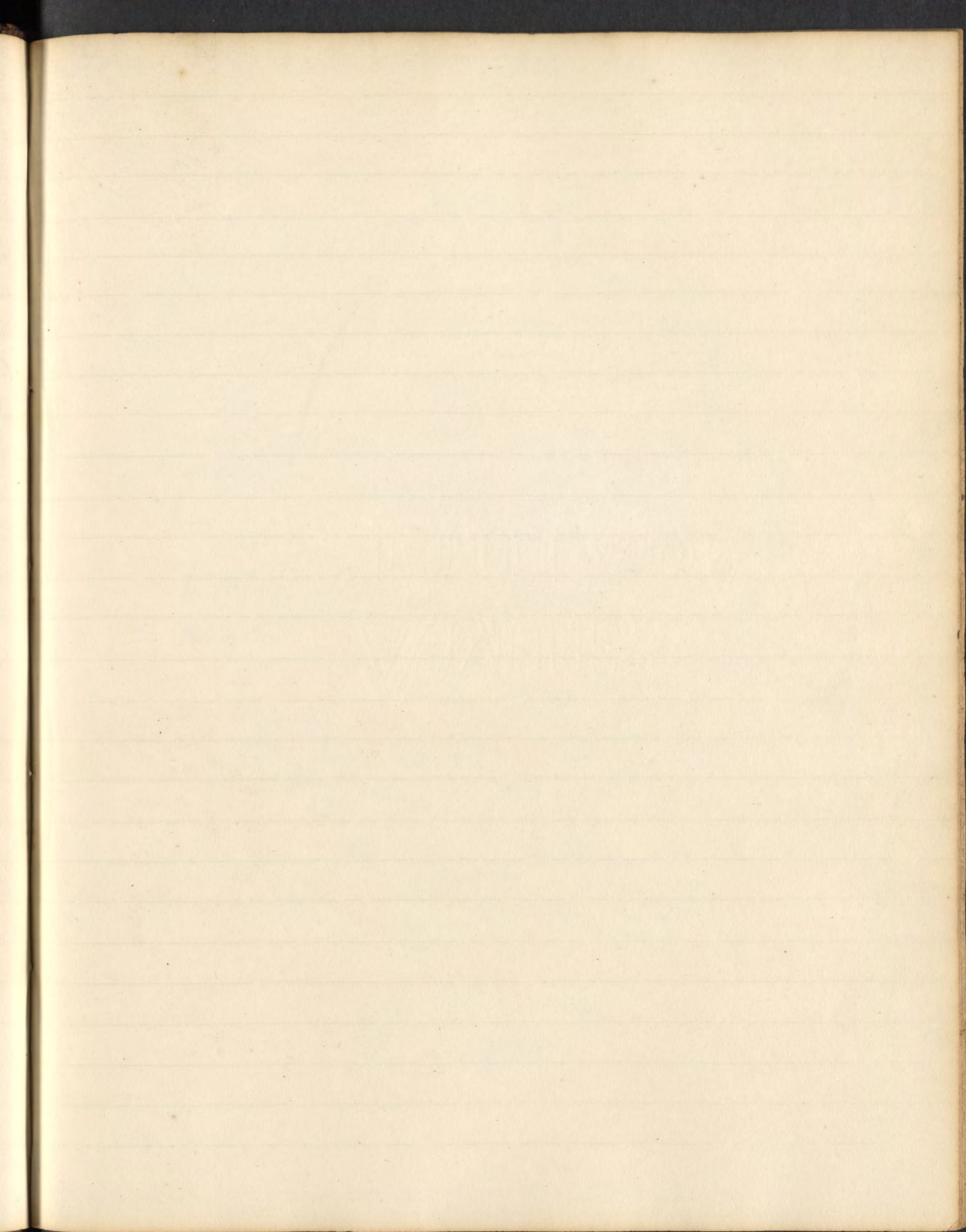
The experiments more recently made by Mr. Home are still more satisfactory. After fasting a dog for several days so that the stomach might be empty, he applied a ligature round the pylorus; a fluid tinged with Rhubarb was thrown into the stomach, and in 30 or 40 minutes the Rhubarb was detected in the urine. He repeated this experiment so frequently that there can be no doubt of its accuracy. Of the medicines supposed to have the power of dissolving the stone, the Carbonic Acid has been long known: but it was not distinctly pointed out till about 35 years ago, when it was recommended by Dr. Dobson. It soon received much attention. Saunders and Percival made many experiments with it. And they maintain that the stone is rendered soluble by the regular use of the carbonic acid. Still more lately it has been proved by Dr. Haler that calculi placed in Malt Liquor or in water impregnated with fixed air are generally dissolved. These experiments have been repeated by Saunders and Percival. The next point to be decided is, whether the Carbonic acid can enter the bladder unaltered. We are informed by Percival that a patient who had continued its use for a long time had his urine affected by it, as was manifested by its precipitating uric from its solution in water, by the nature of the bubbles of gas which escaped from it, by its dissolving calculi. This also is

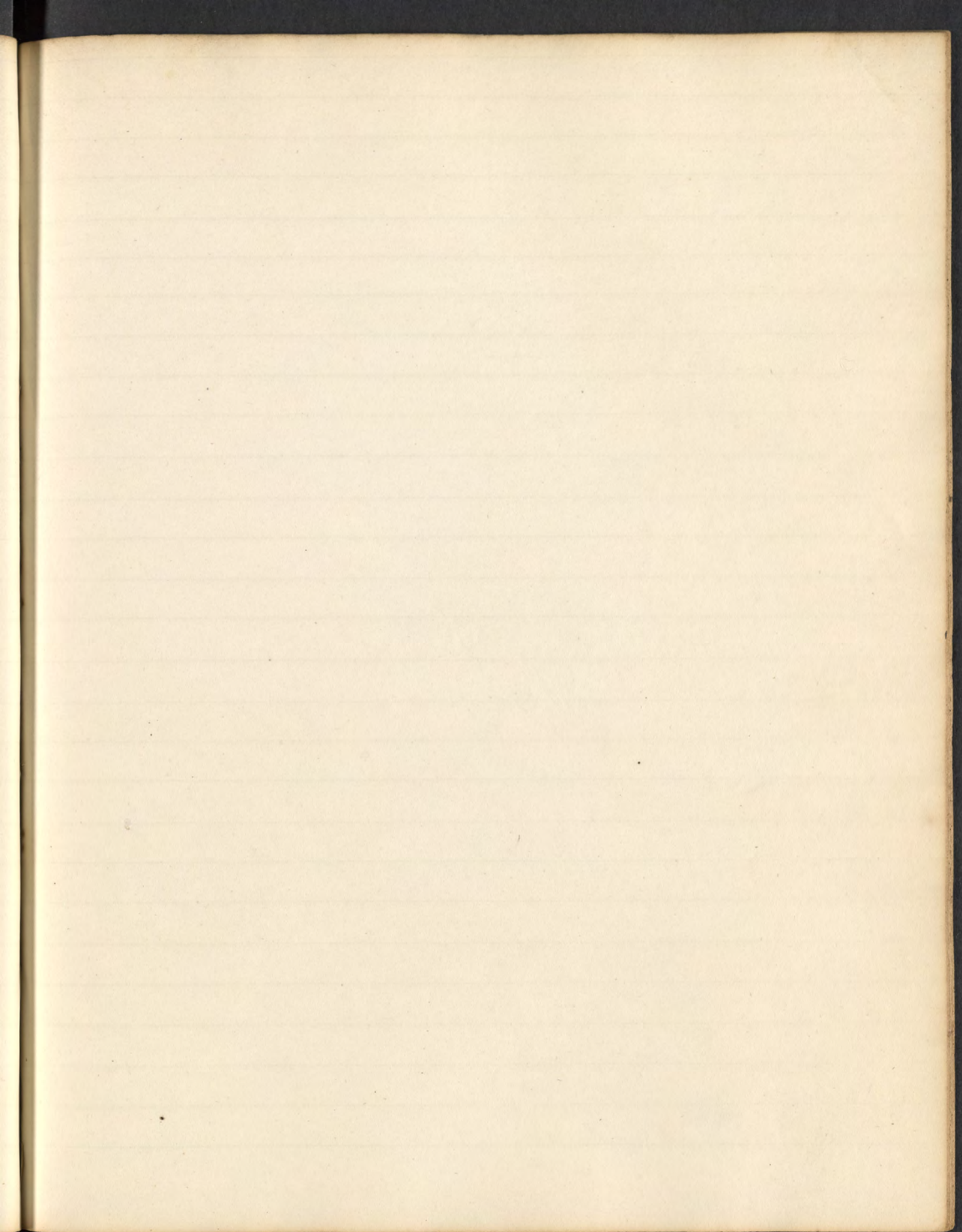
Confirmed by Priestly. It moreover appears on very respectable authority that calculi immersed in the water of Pyrmont & Spa have been very much acted on. Notwithstanding these facts I cannot insist on the certainty of carbonic acid dissolving the stone. But enough has been ascertained to show that the urine is sensibly affected by it. My own experience in calculous affections is narrow and of the virtues of this article I can say but little. It would, however, be the height of scepticism to doubt its efficacy, I will not say as solvent, but as a palliative. In gravel I have found it very useful under the form of Seltzer water.

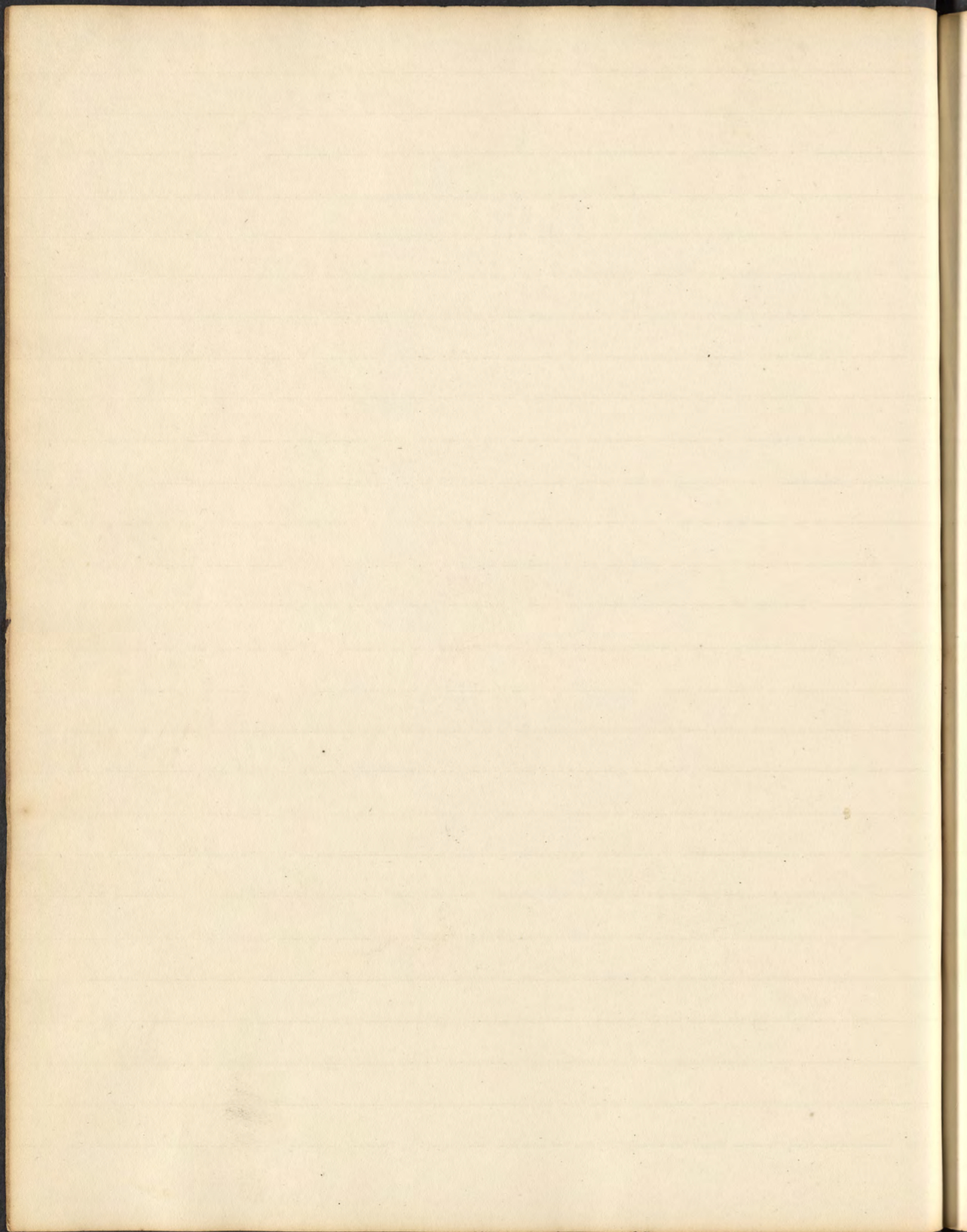
confirmed by Smith. It never appears in any respectable author
 that that article occurred in the water of Cyprus. I have been
 very much interested in this point. I cannot resist
 the certainty of Carbone's acid dissolving the stone. But even if
 this assertion is false, that the stone is hardly affected by it. My
 own experience in calculeous affection is a narrow field of the nature
 this article I can say but little. It would however be the height of
 folly to doubt its efficacy. I will not say in what but as a palliative
 in gravel I have found it very useful under the form of either water.

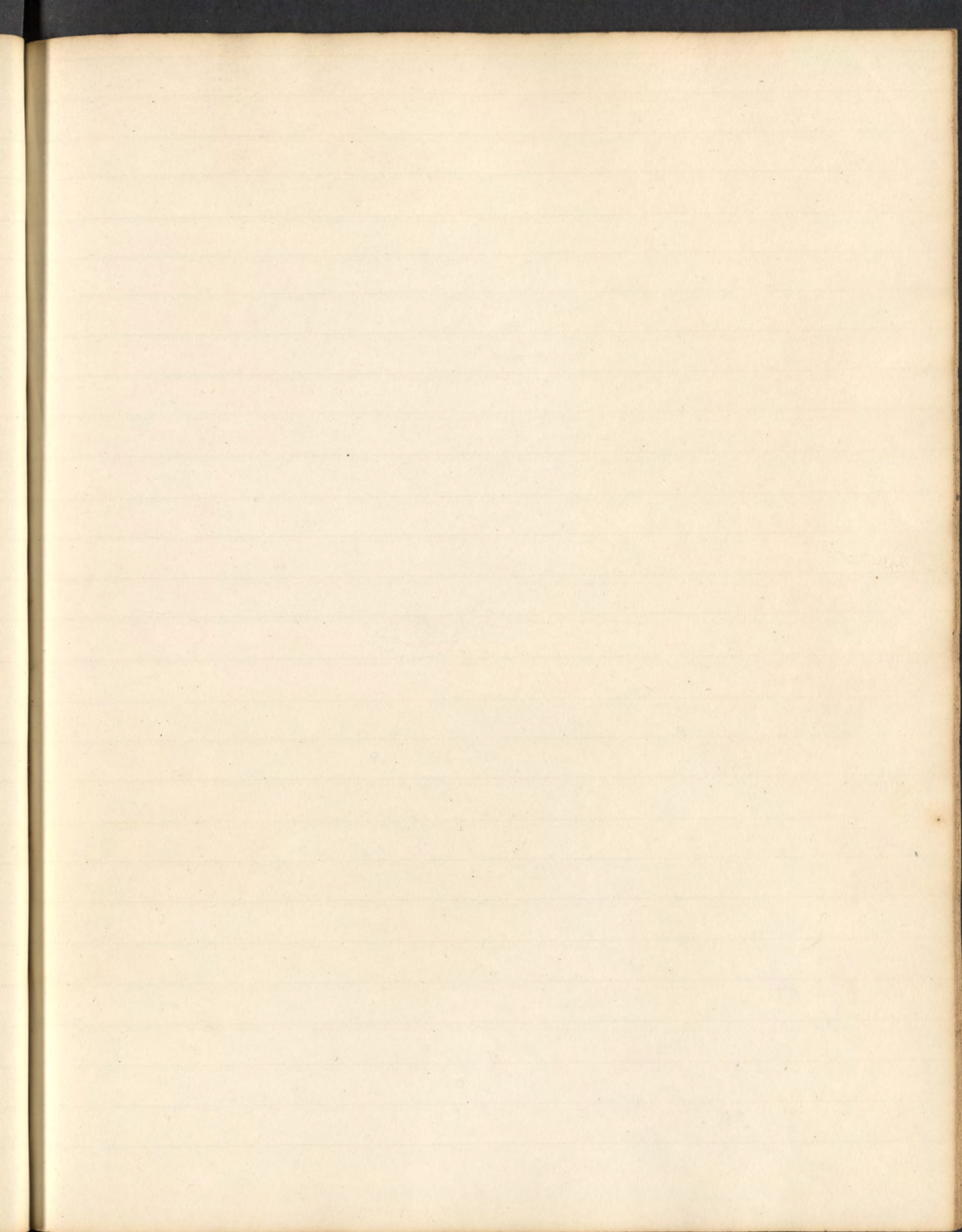


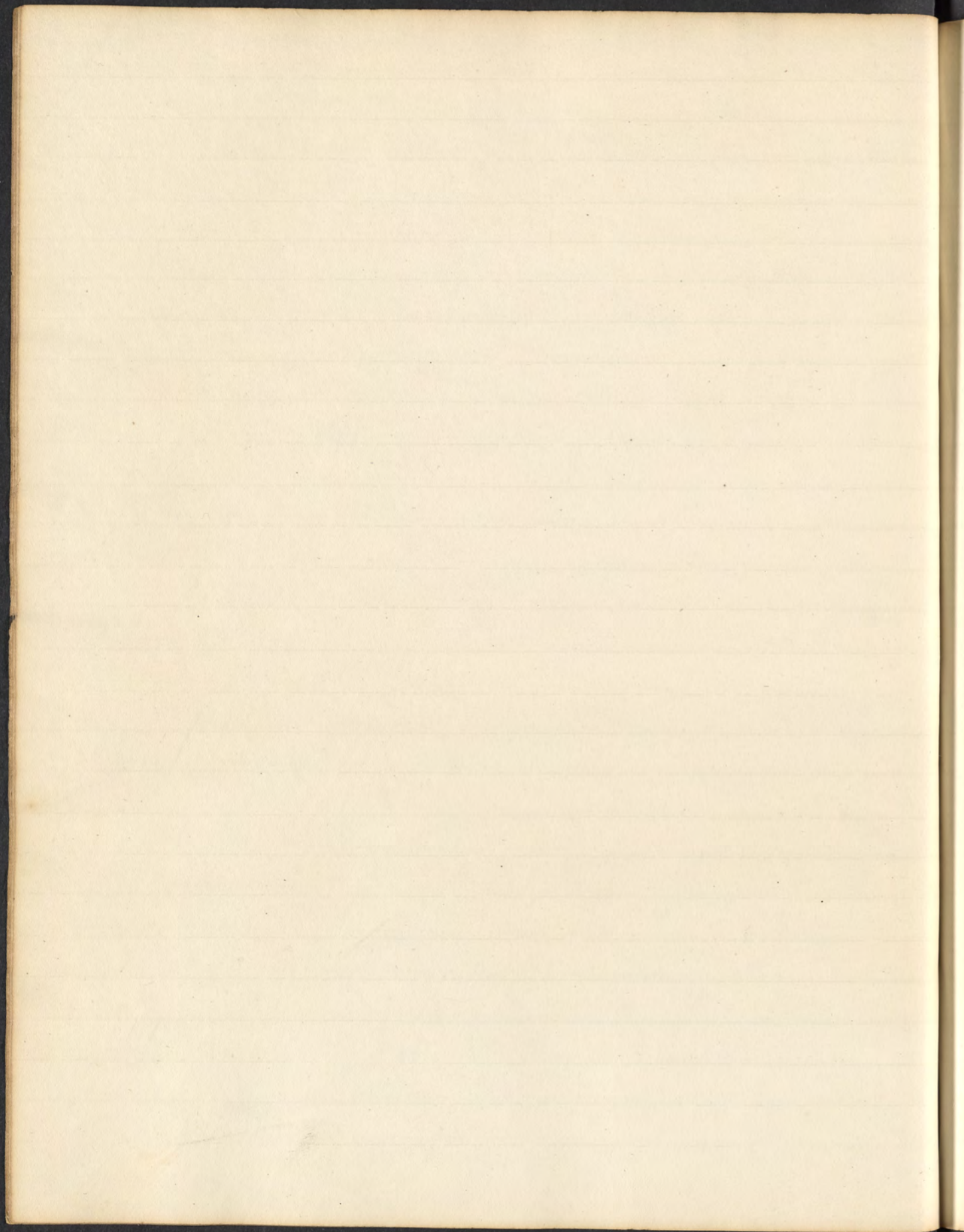


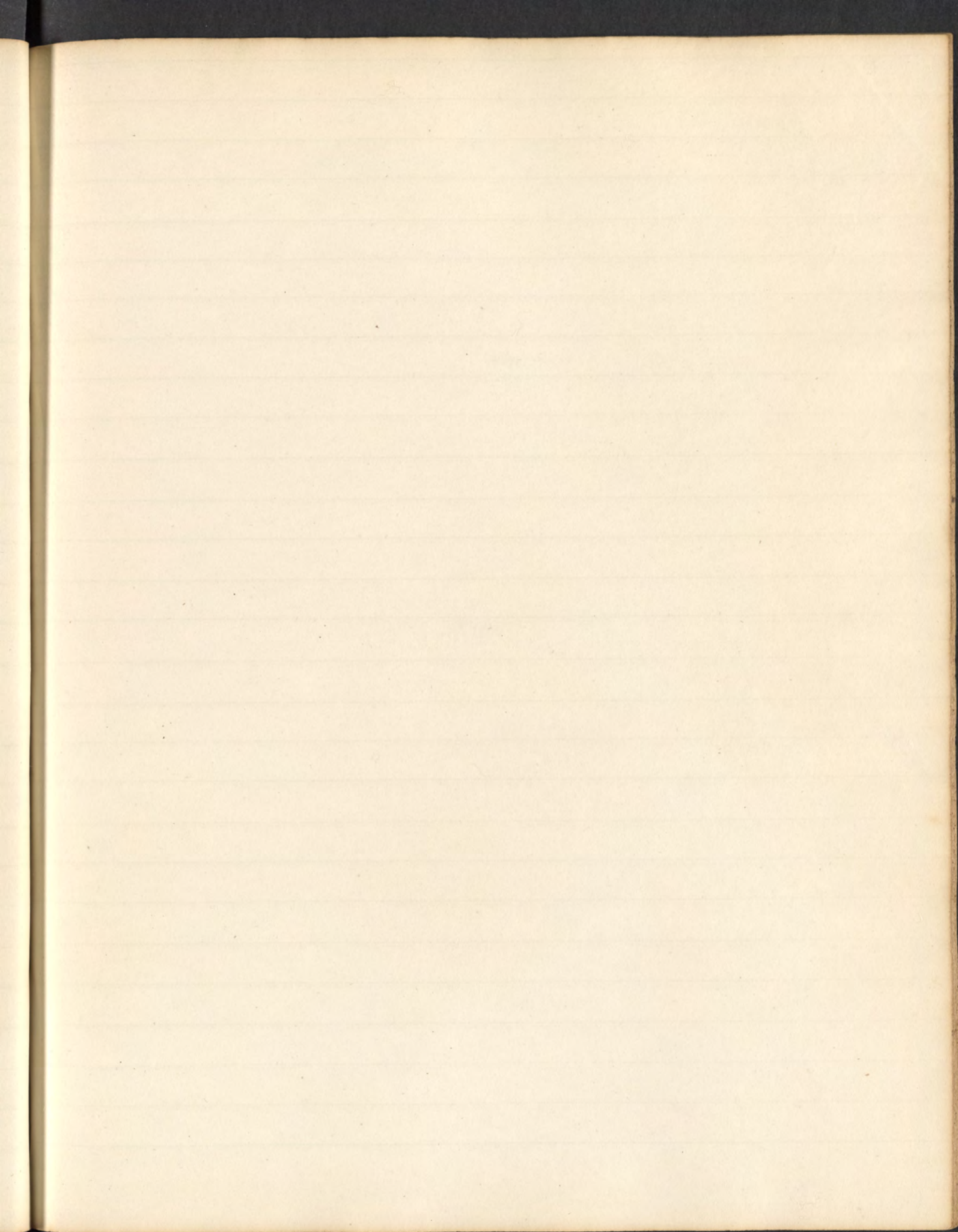


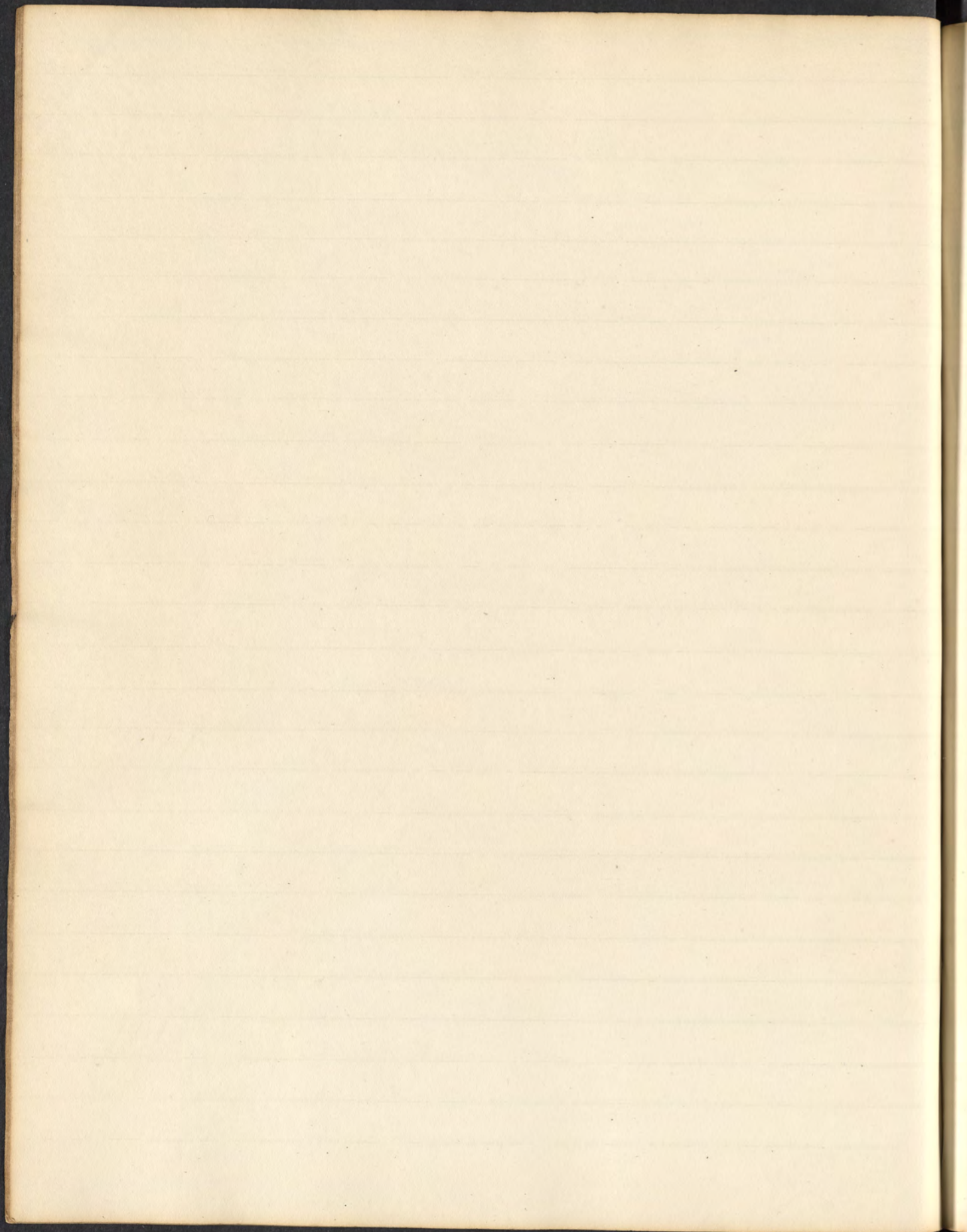


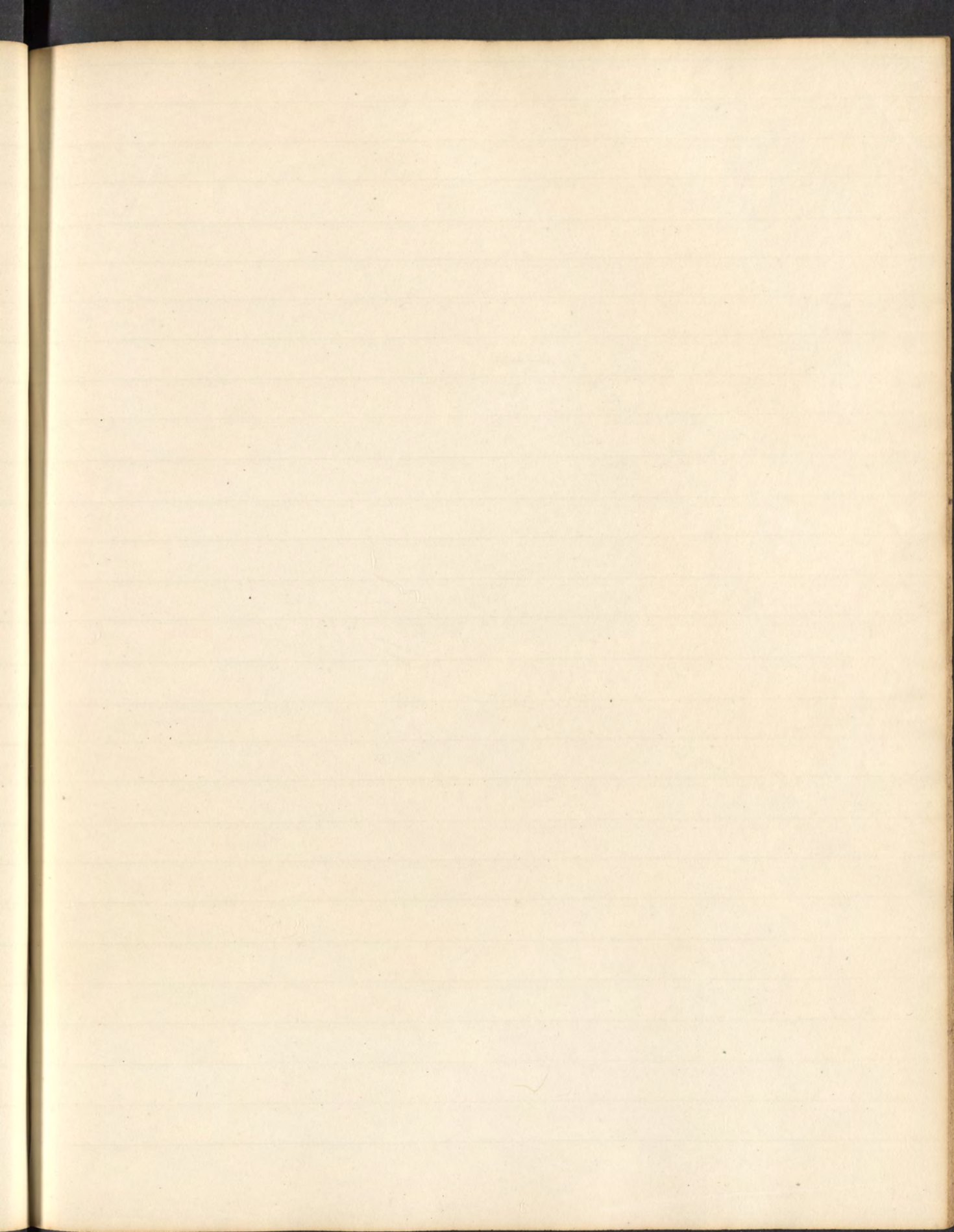


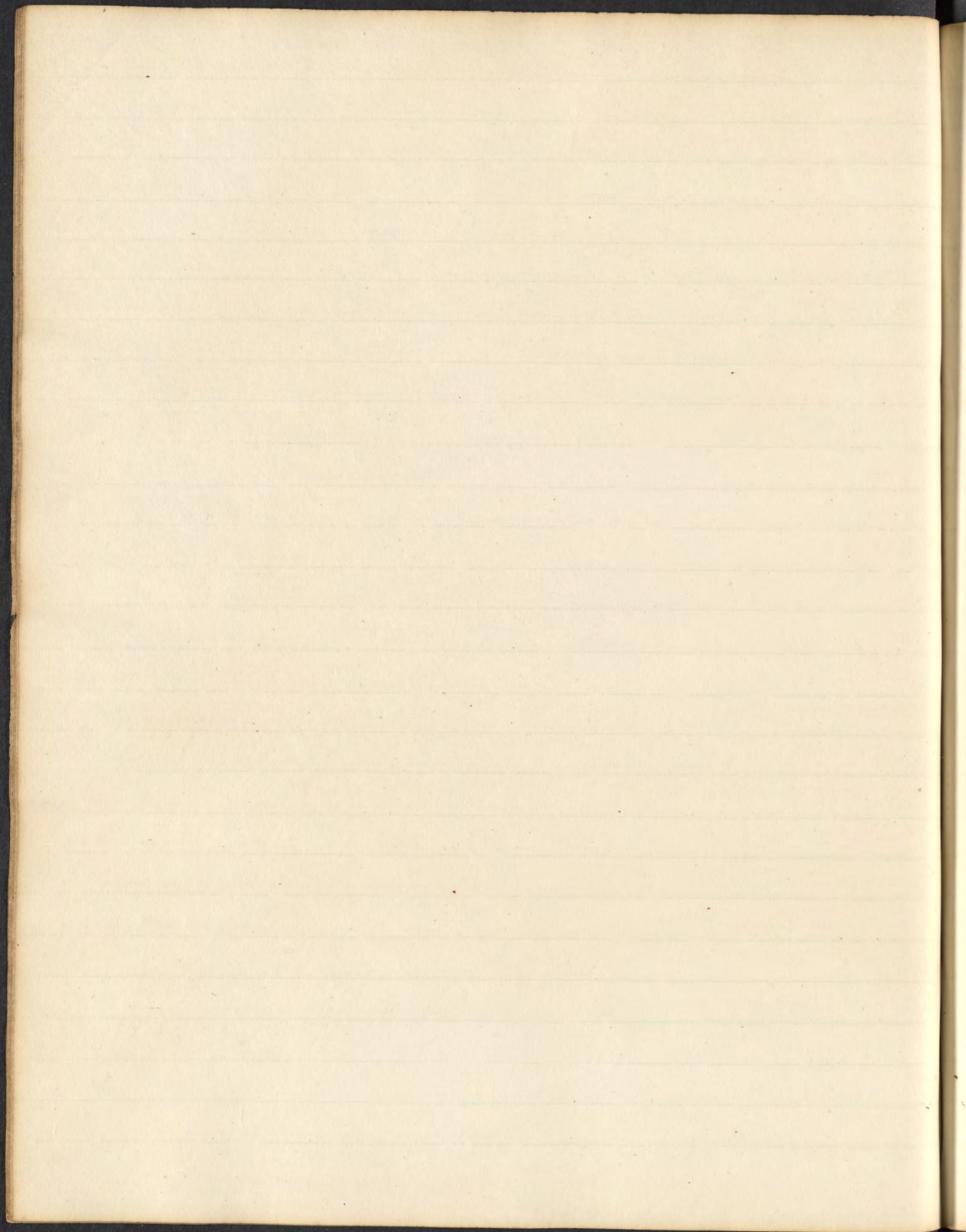


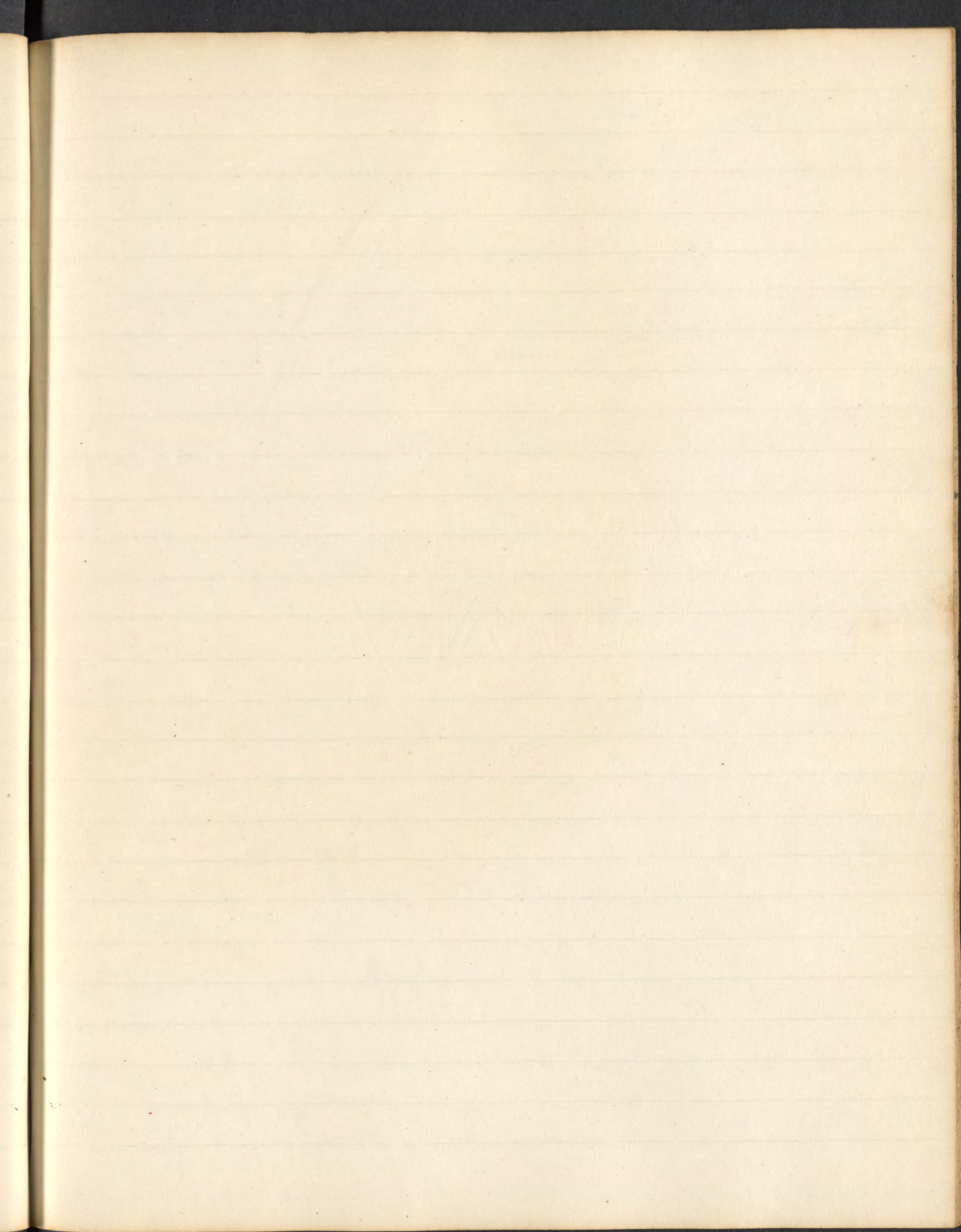


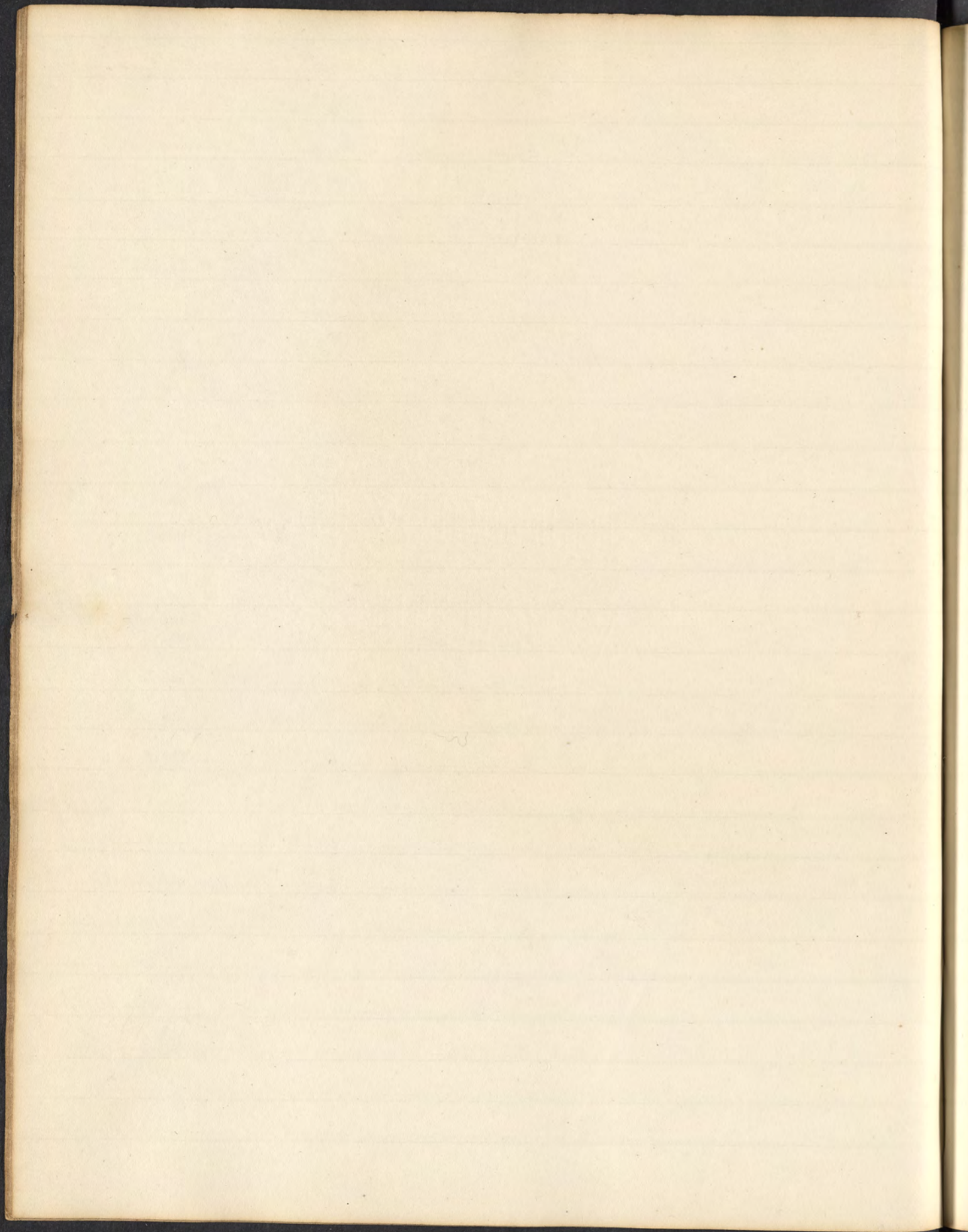


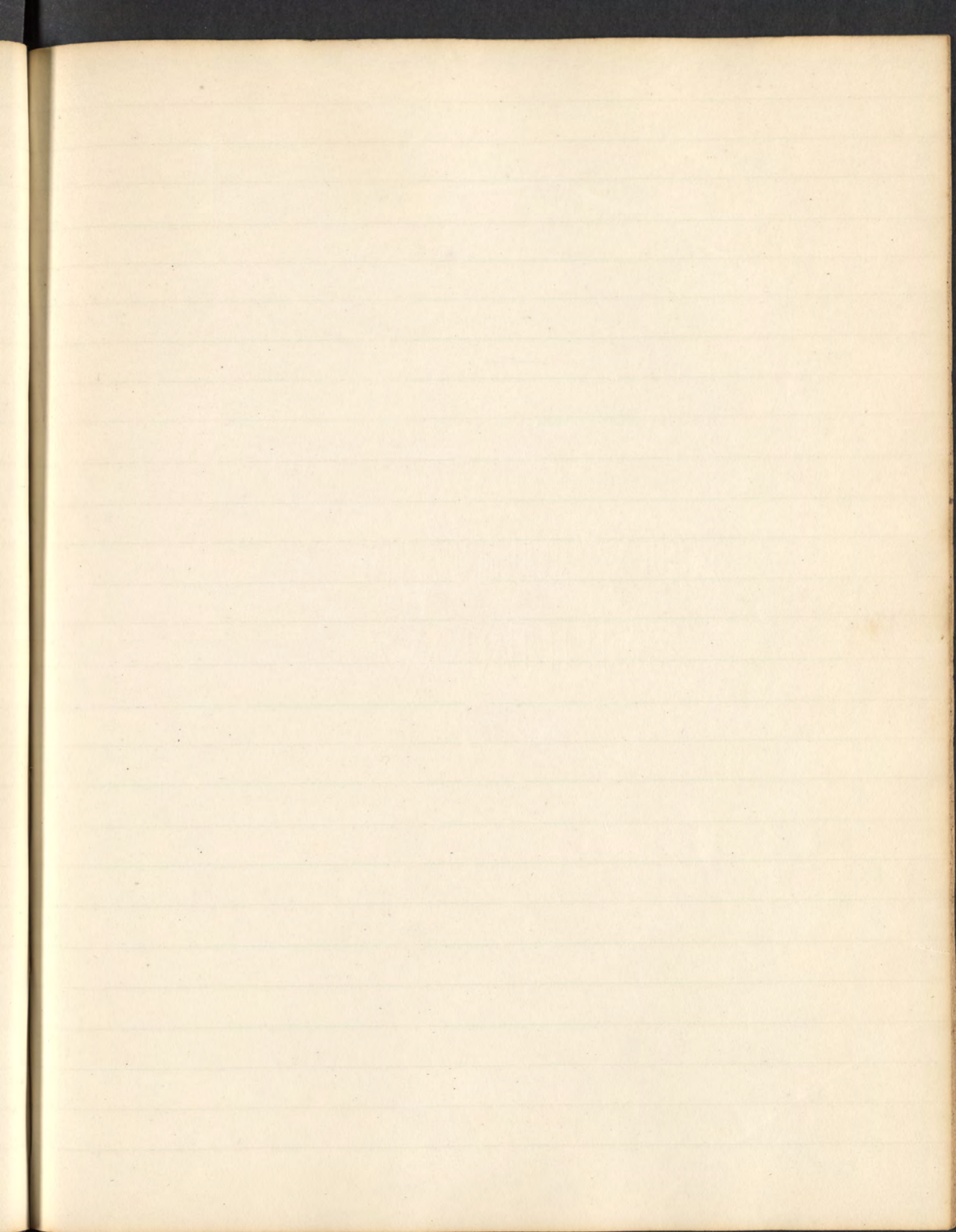


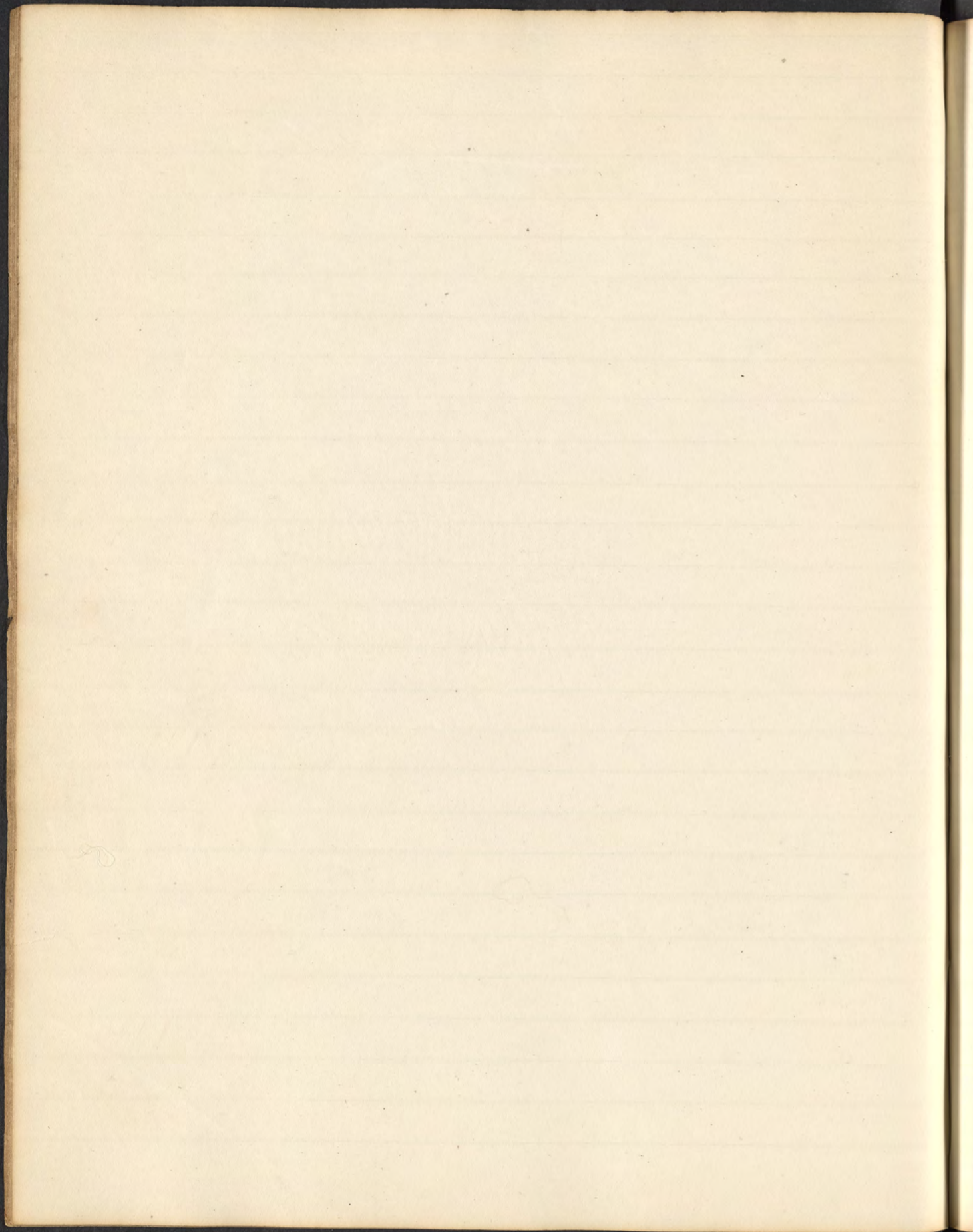


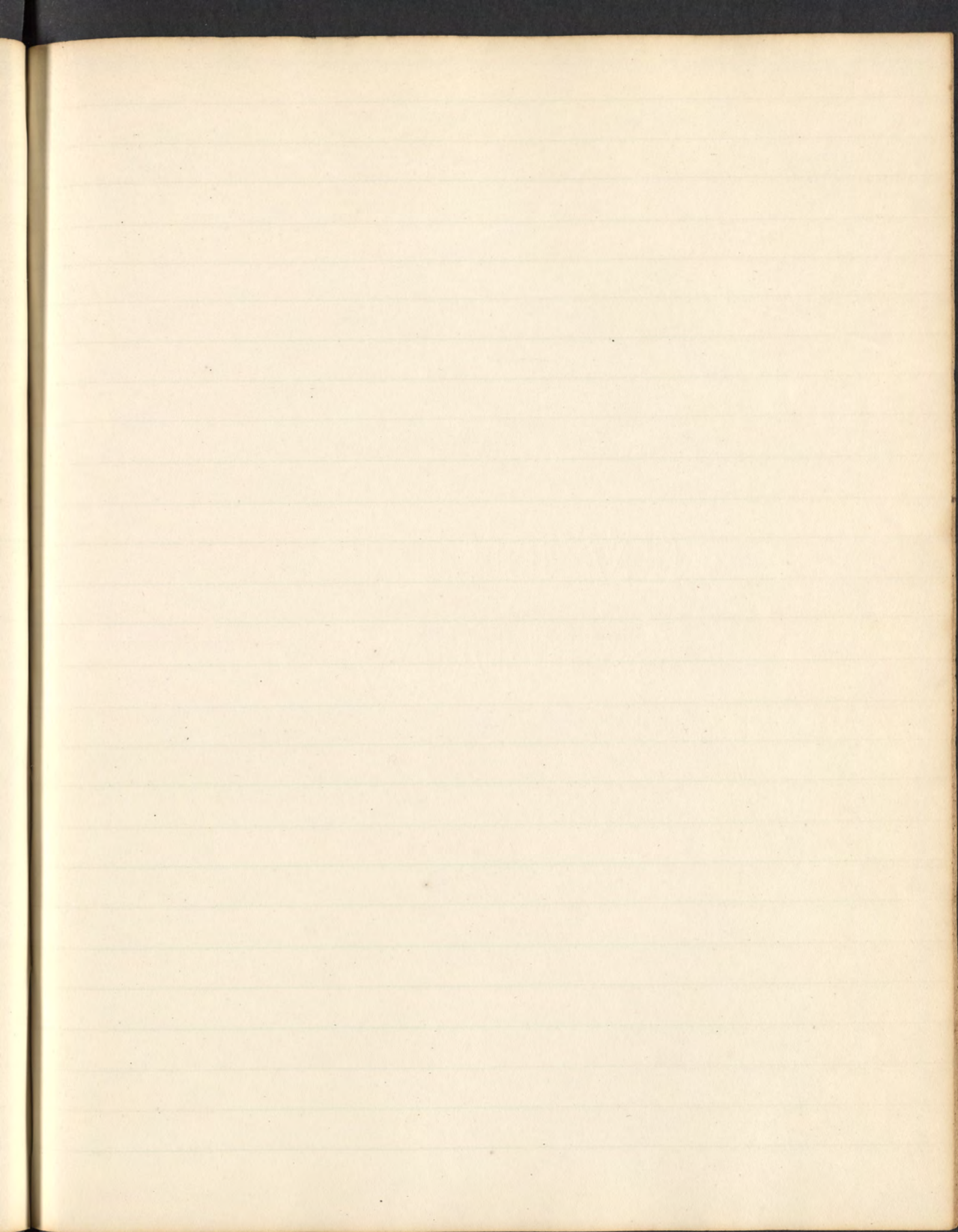


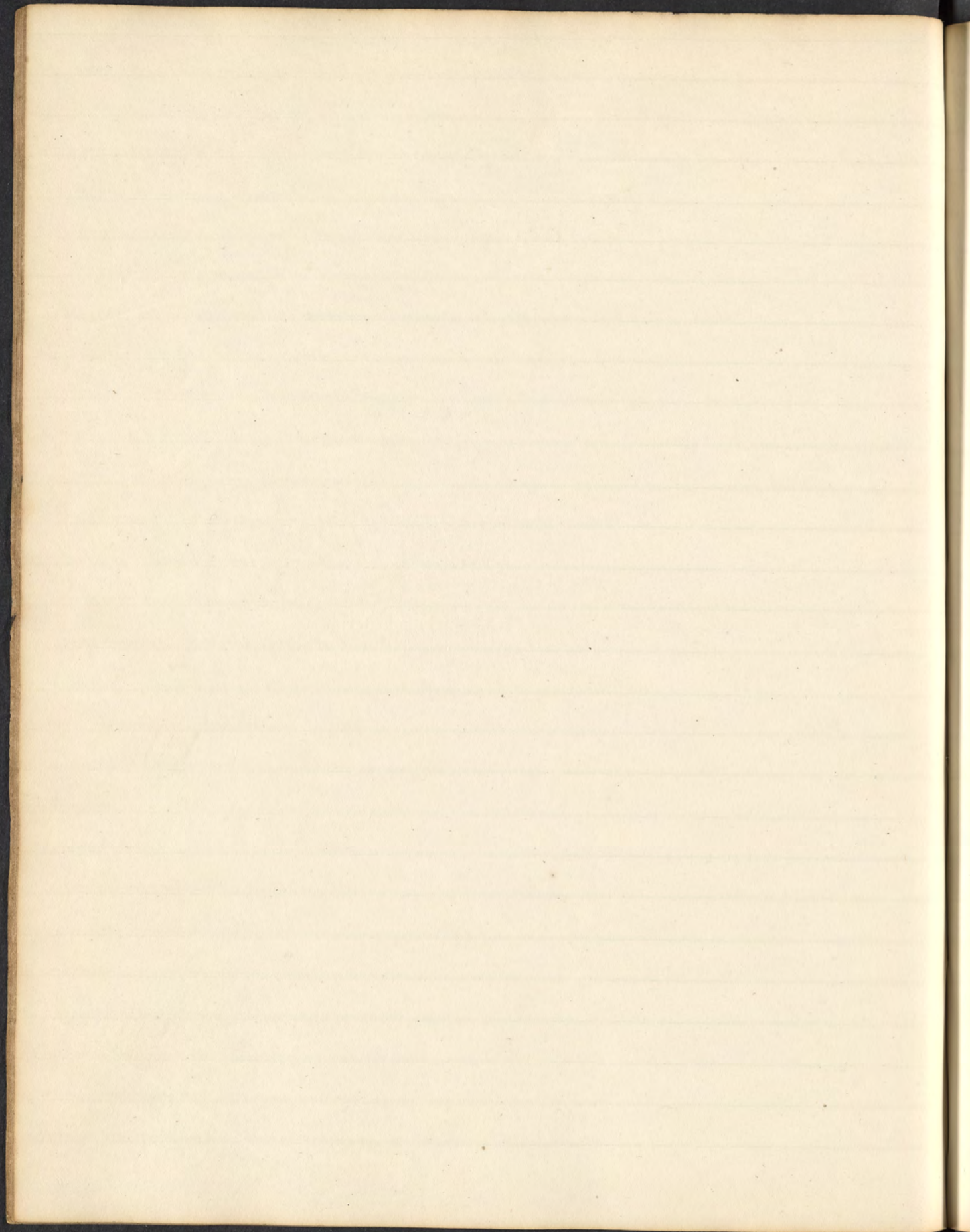


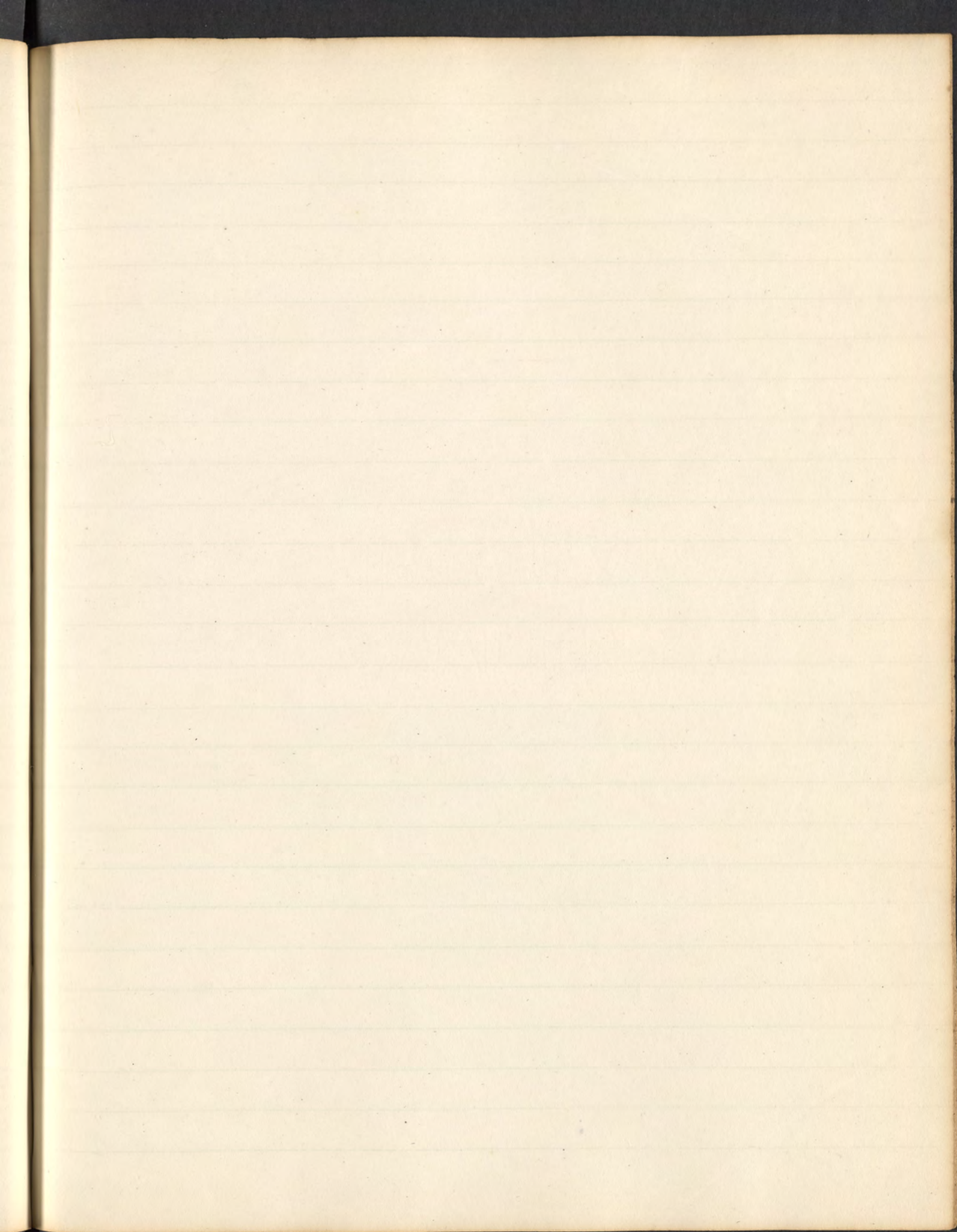


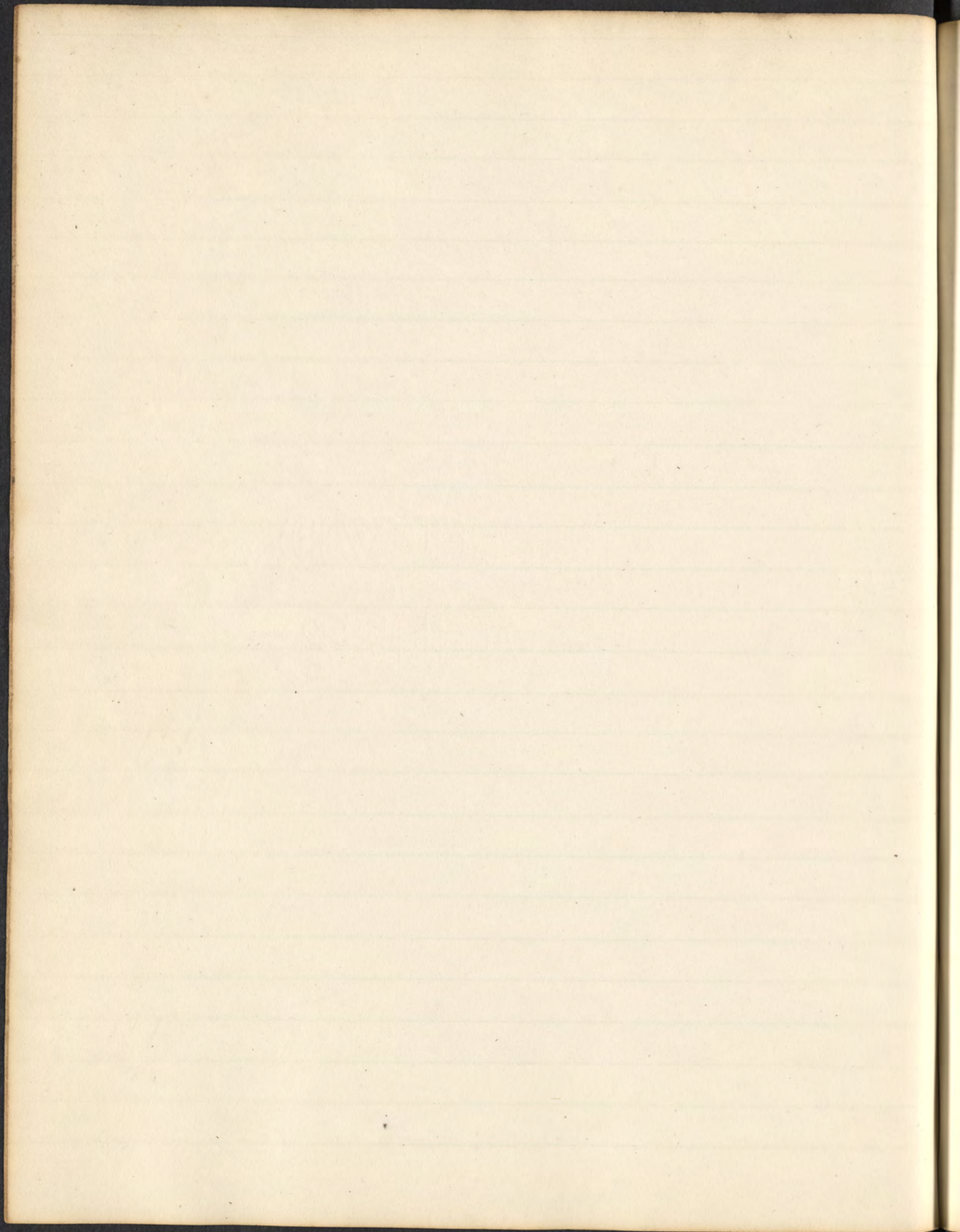


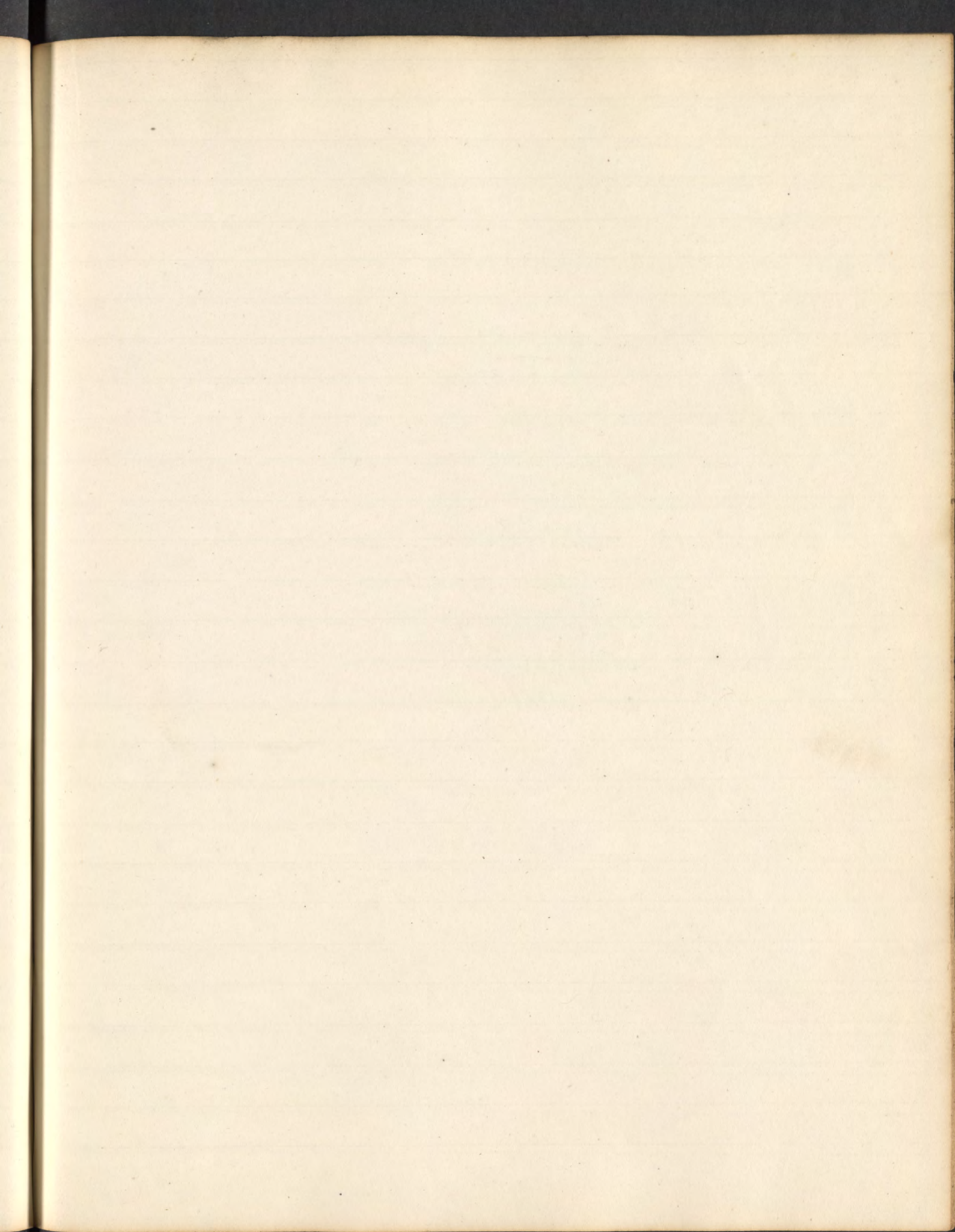


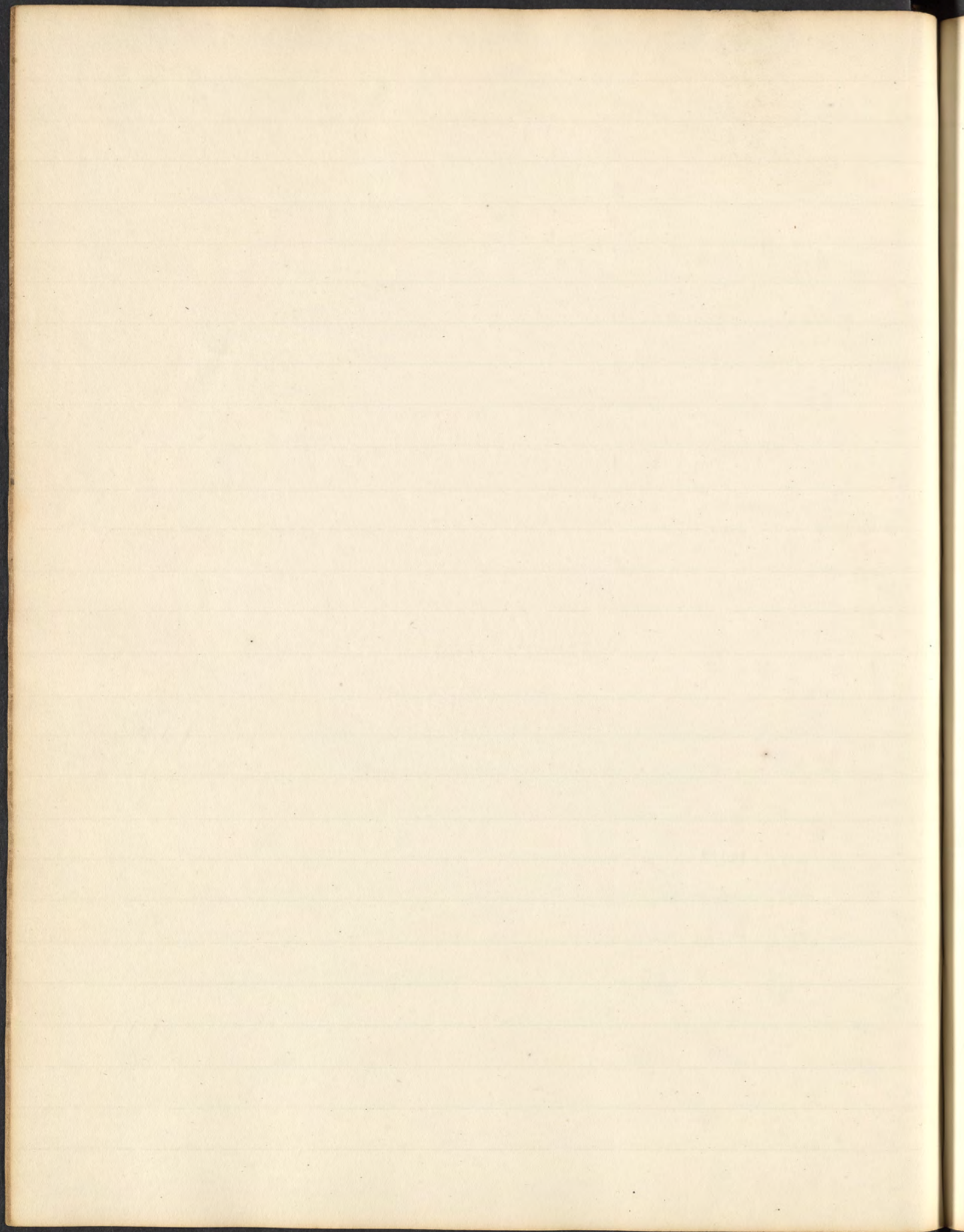


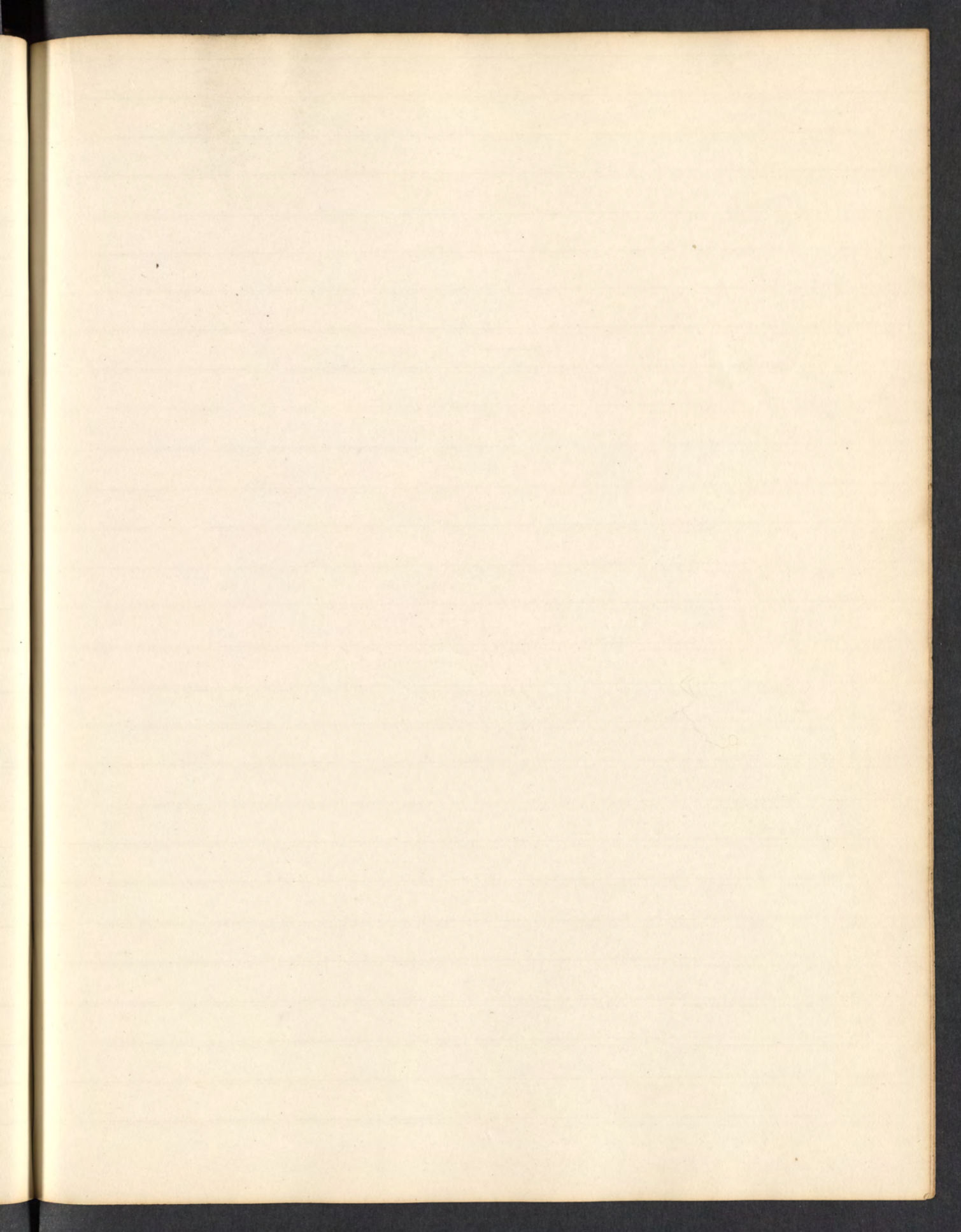


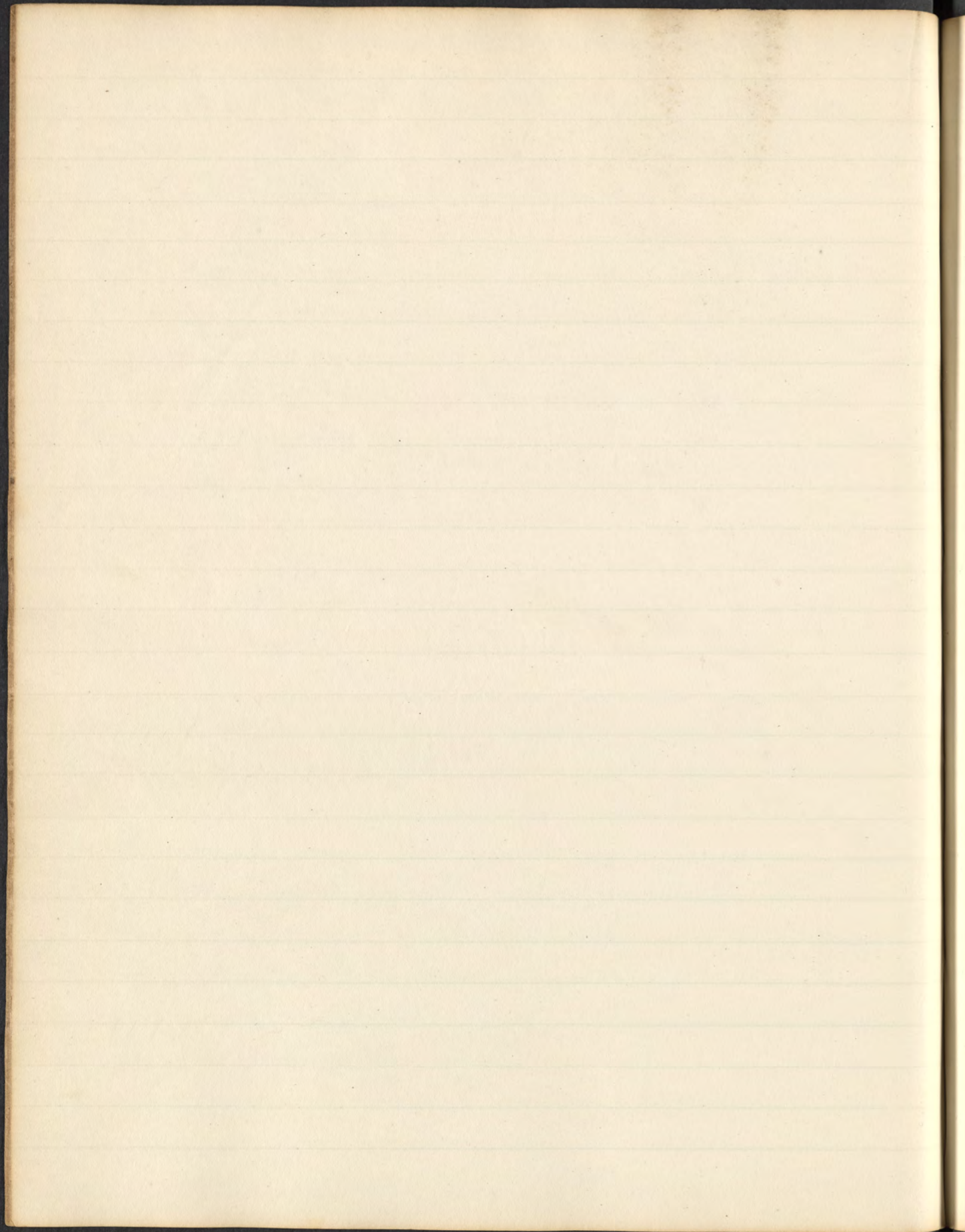


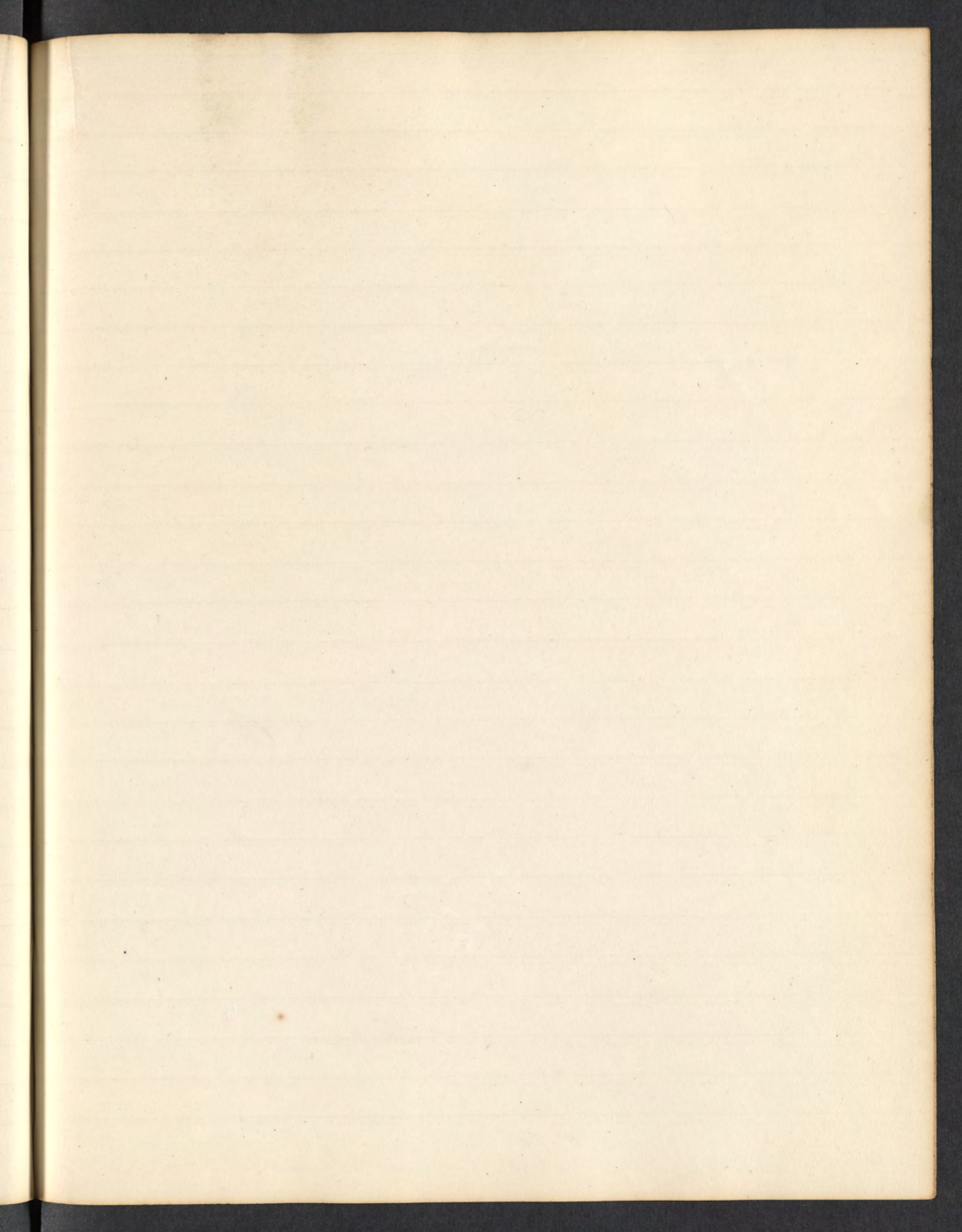


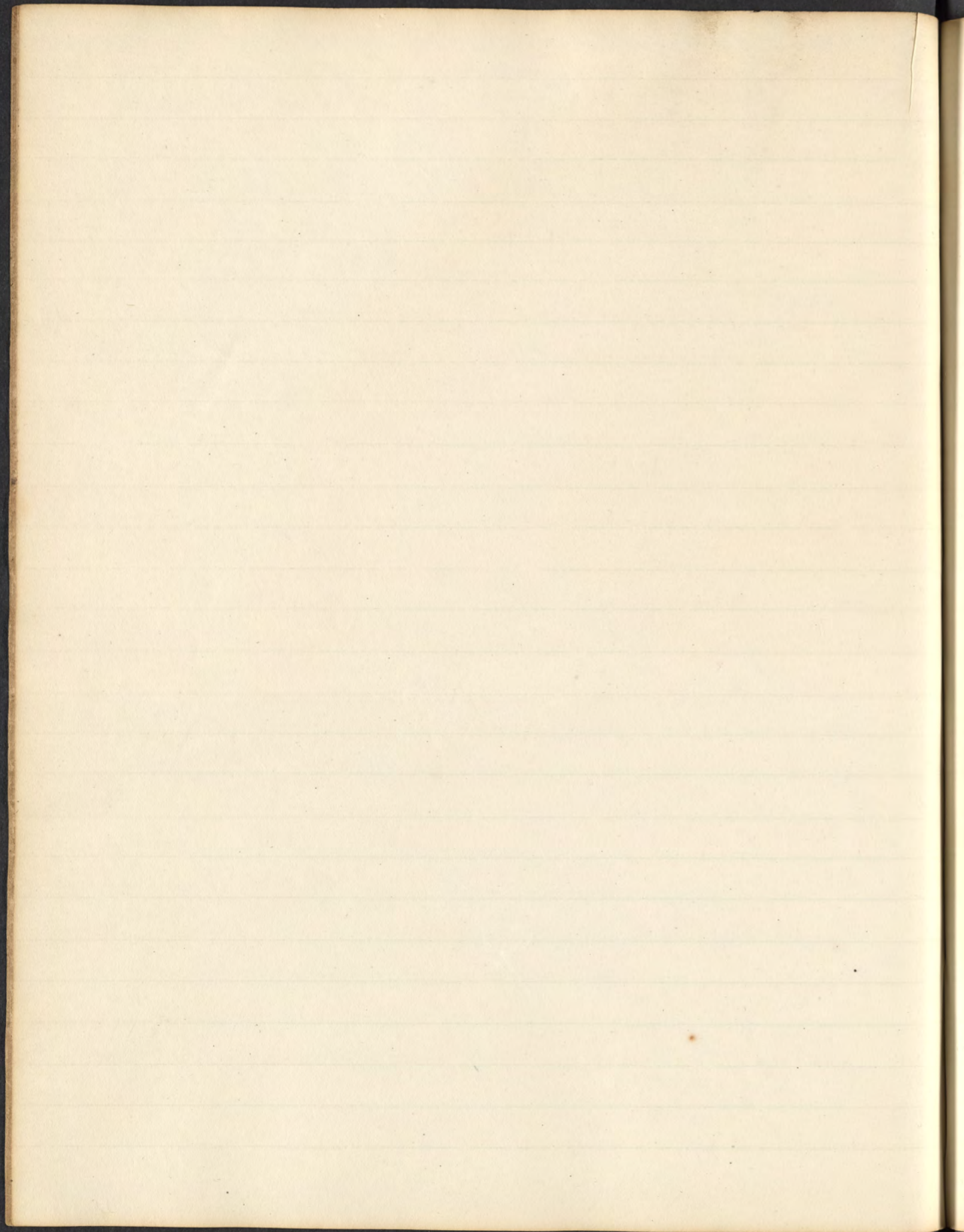


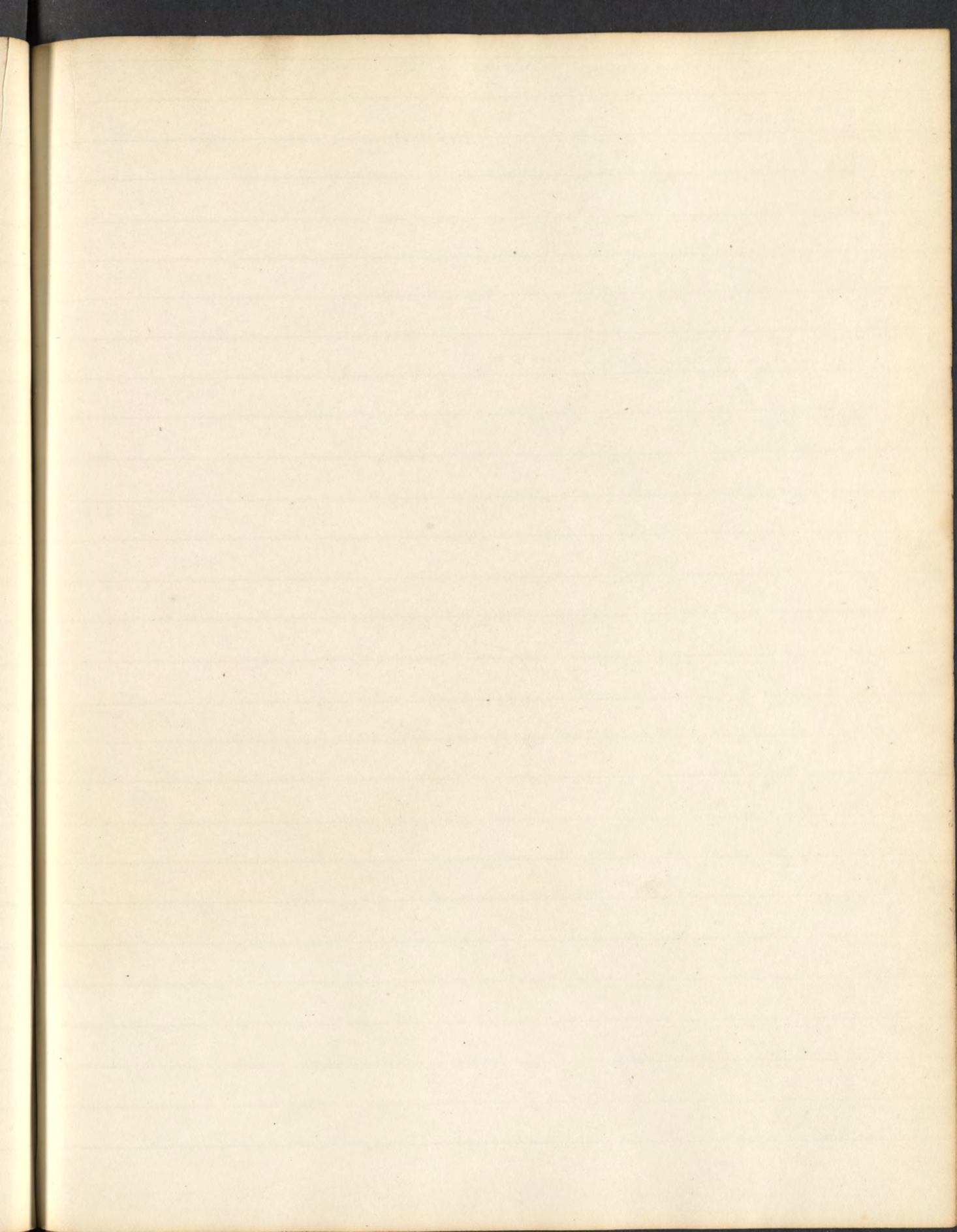


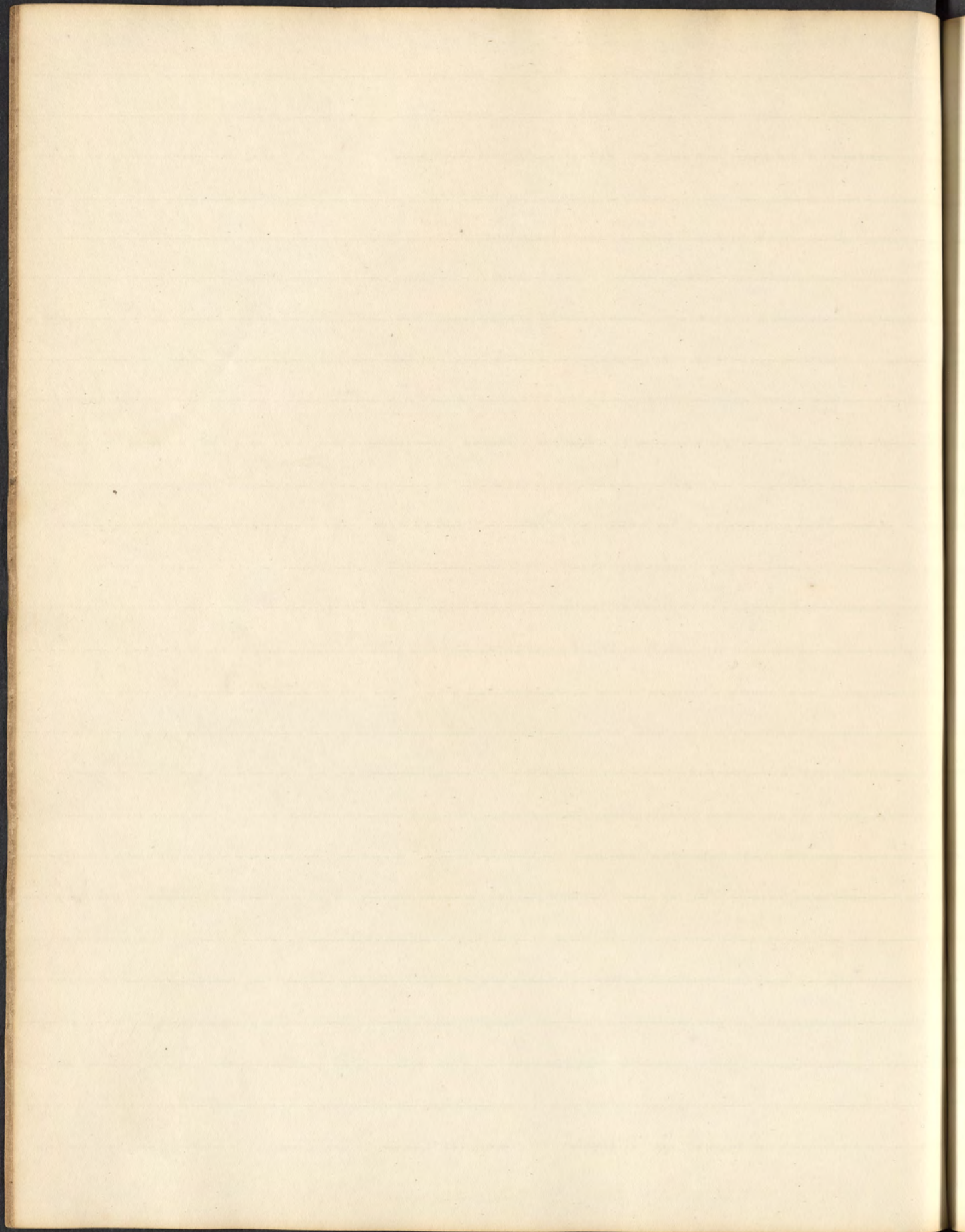


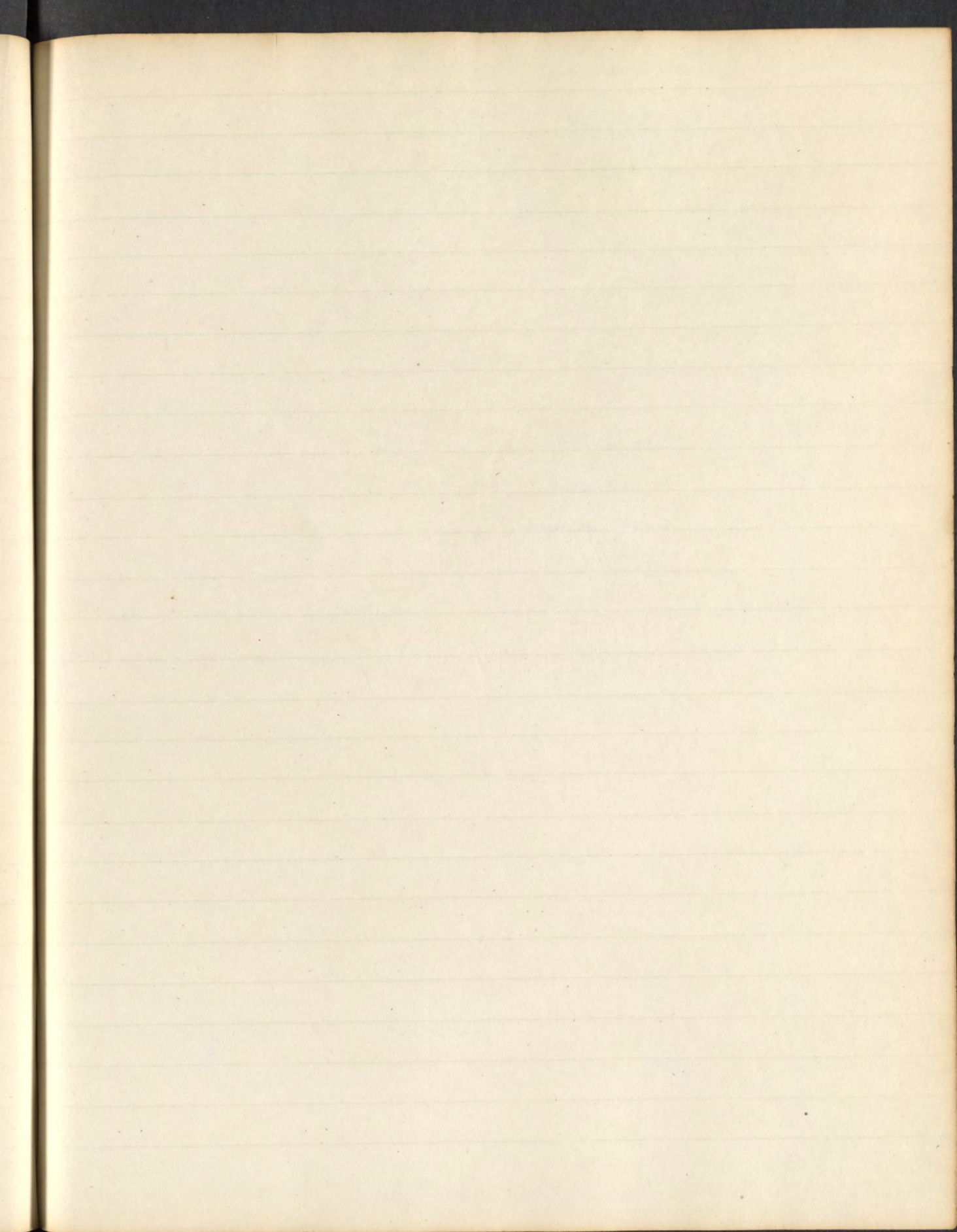


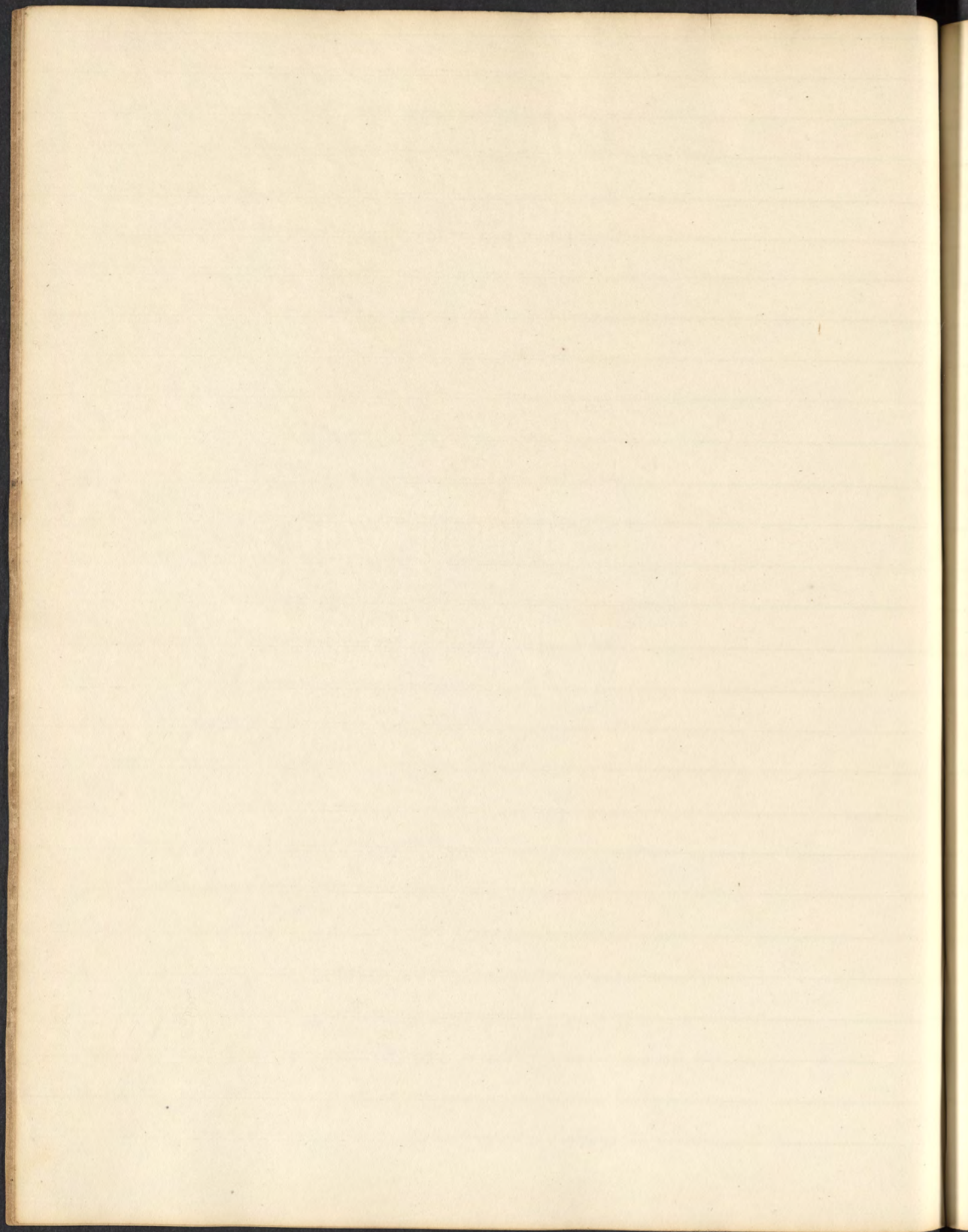


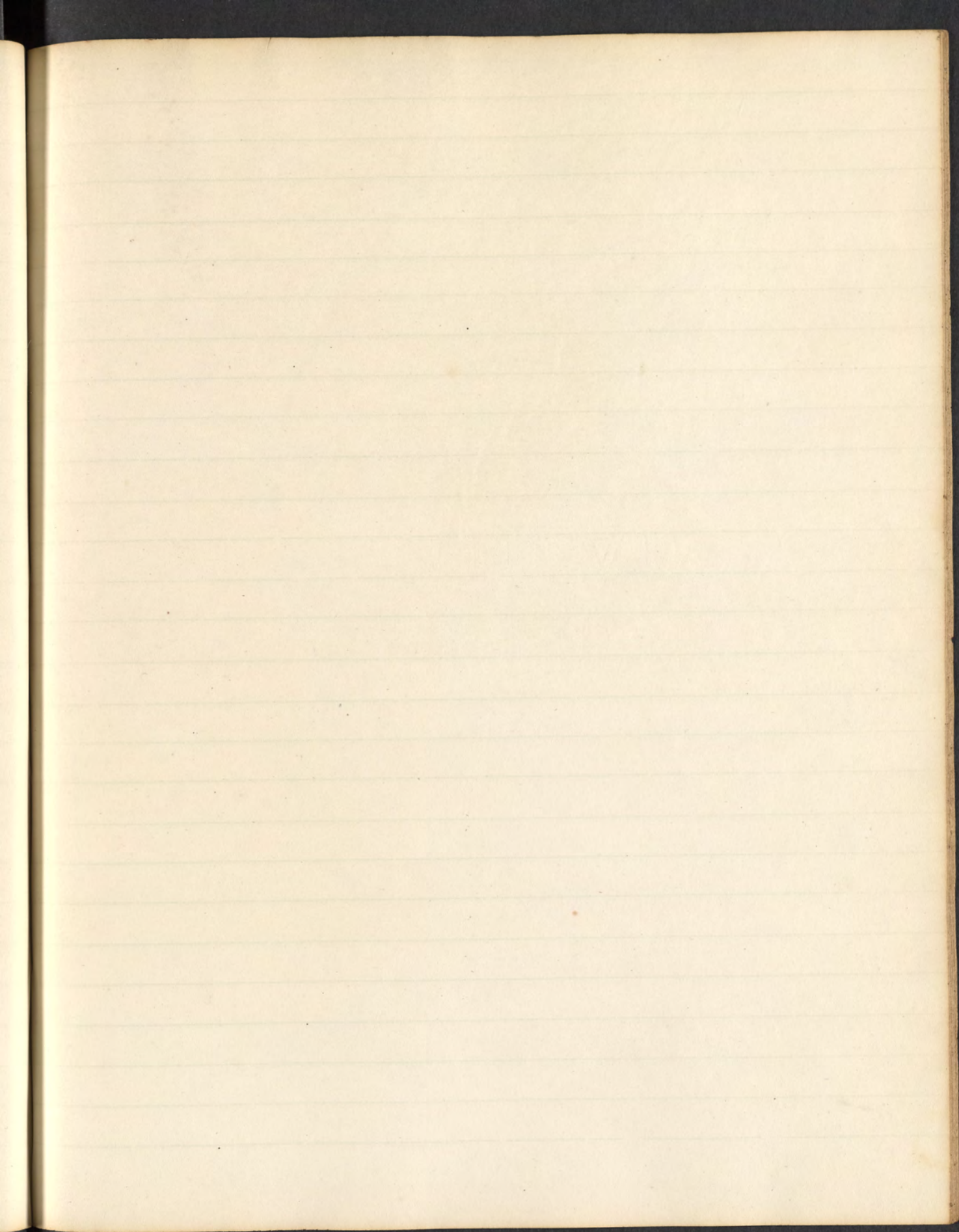


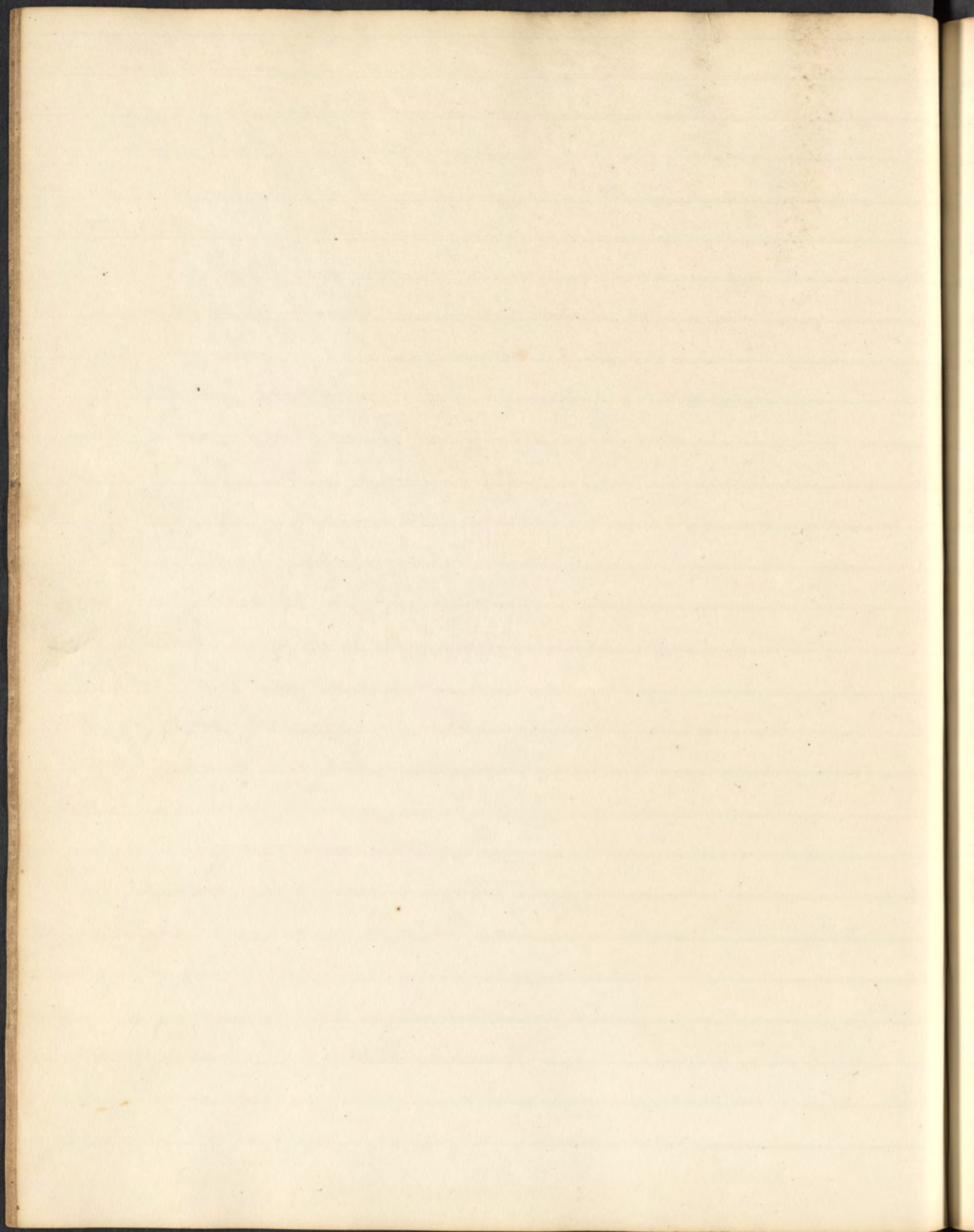


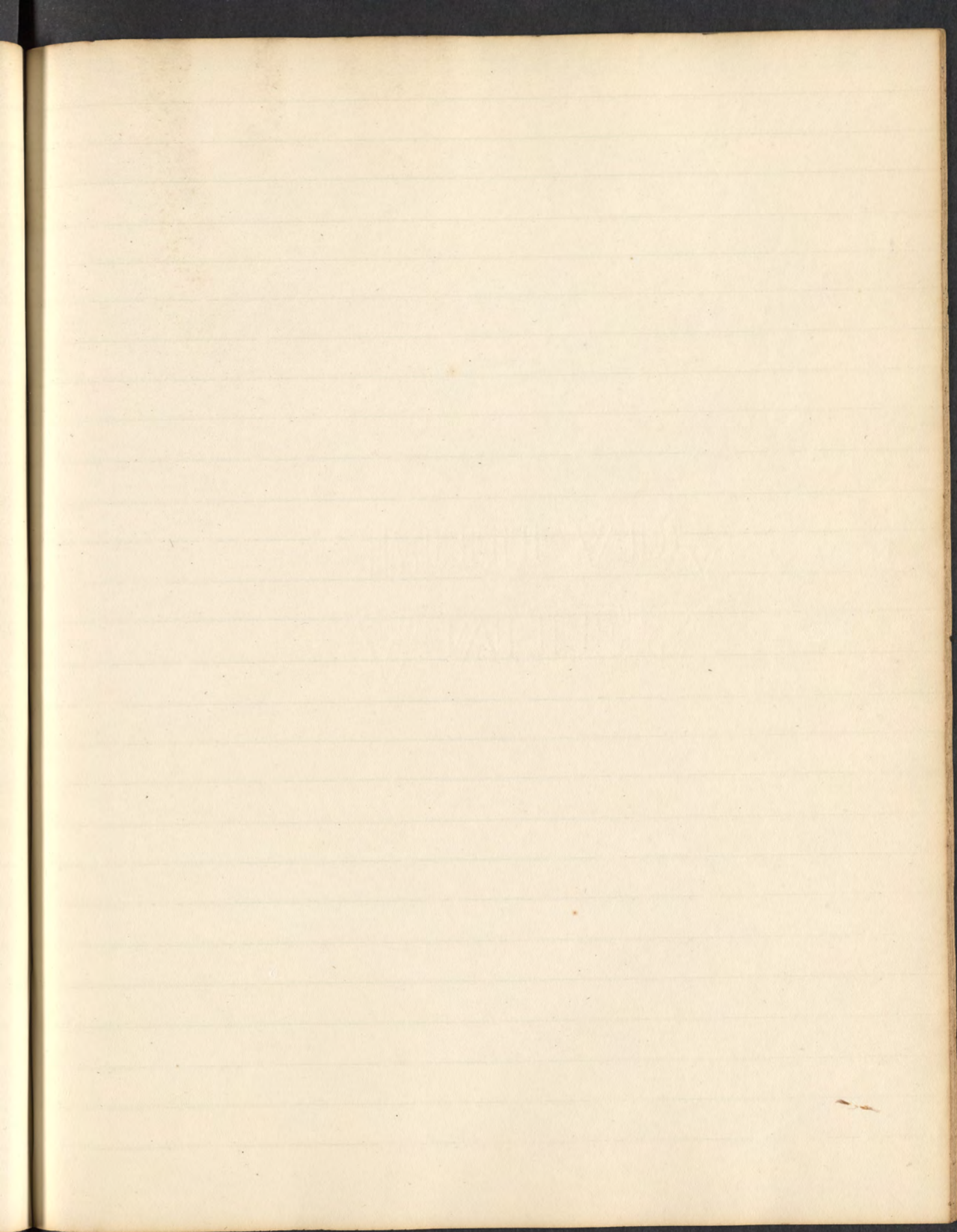




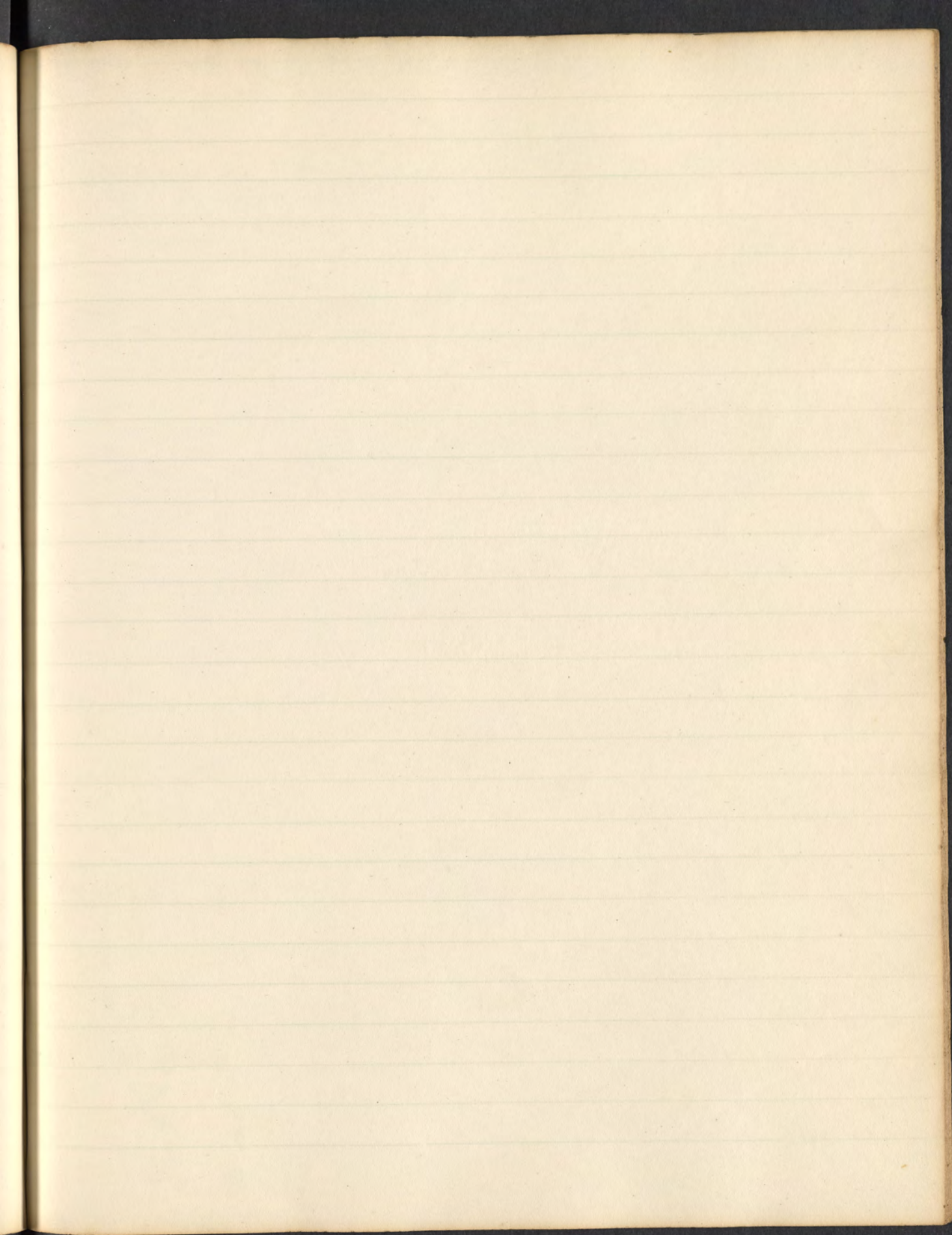


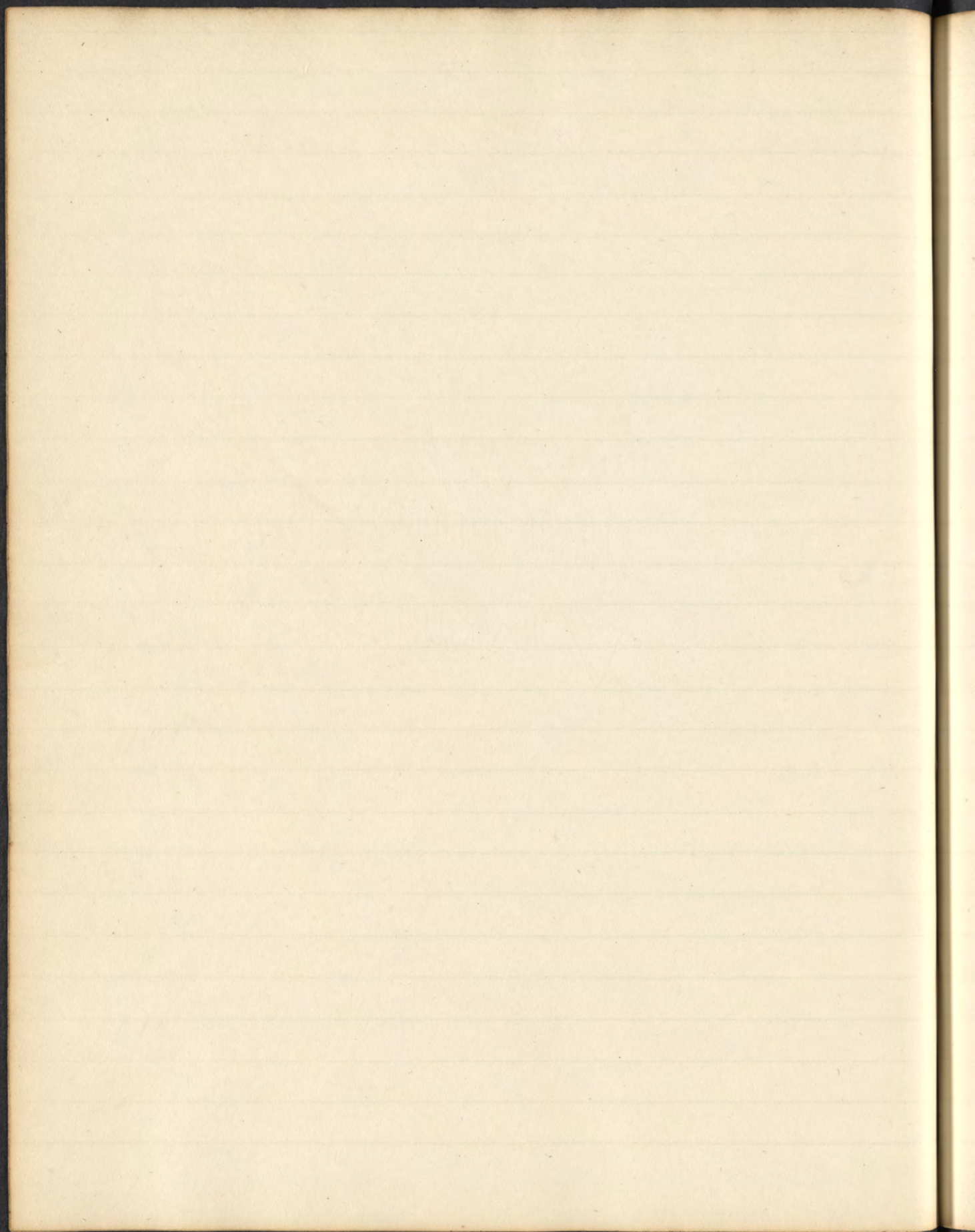


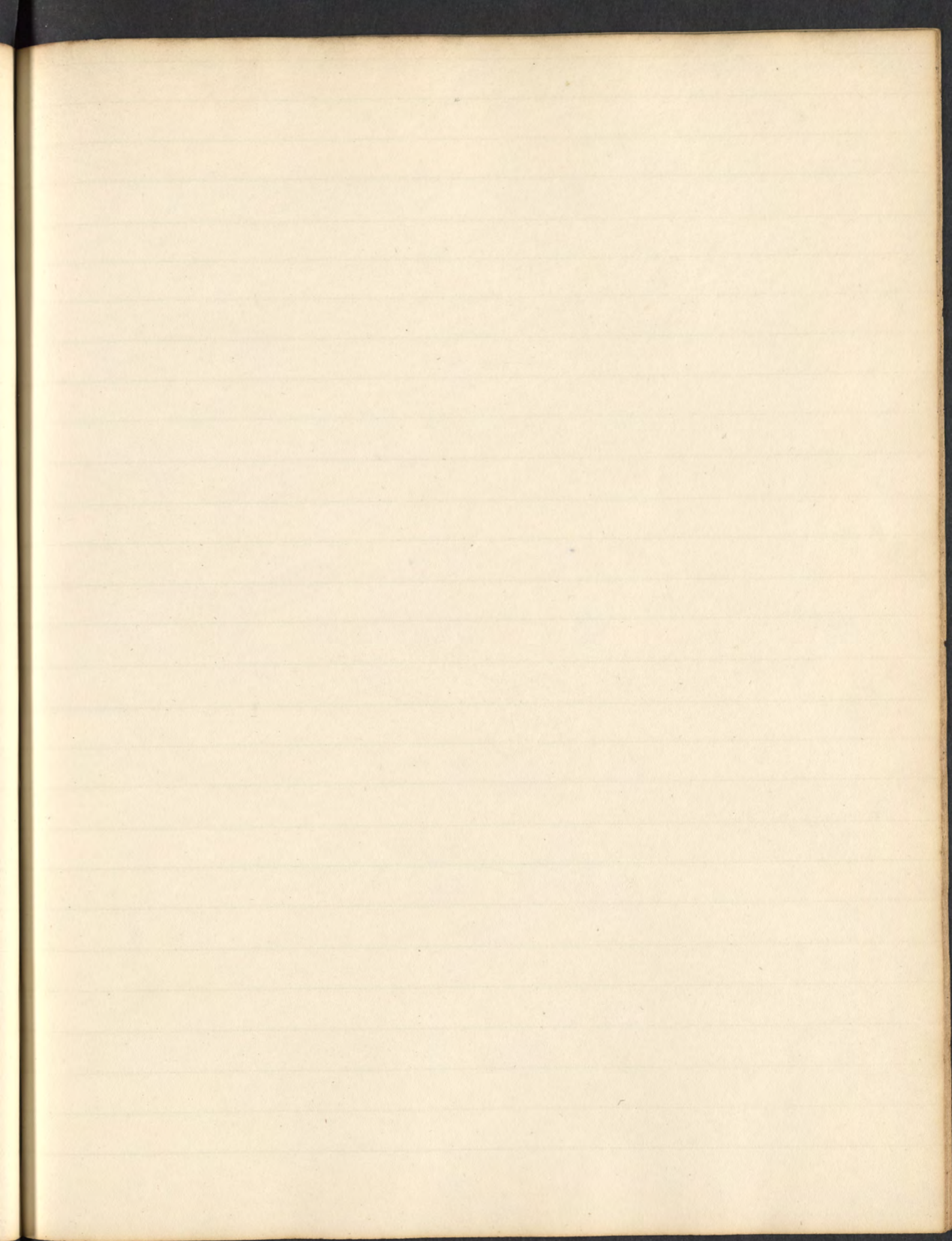


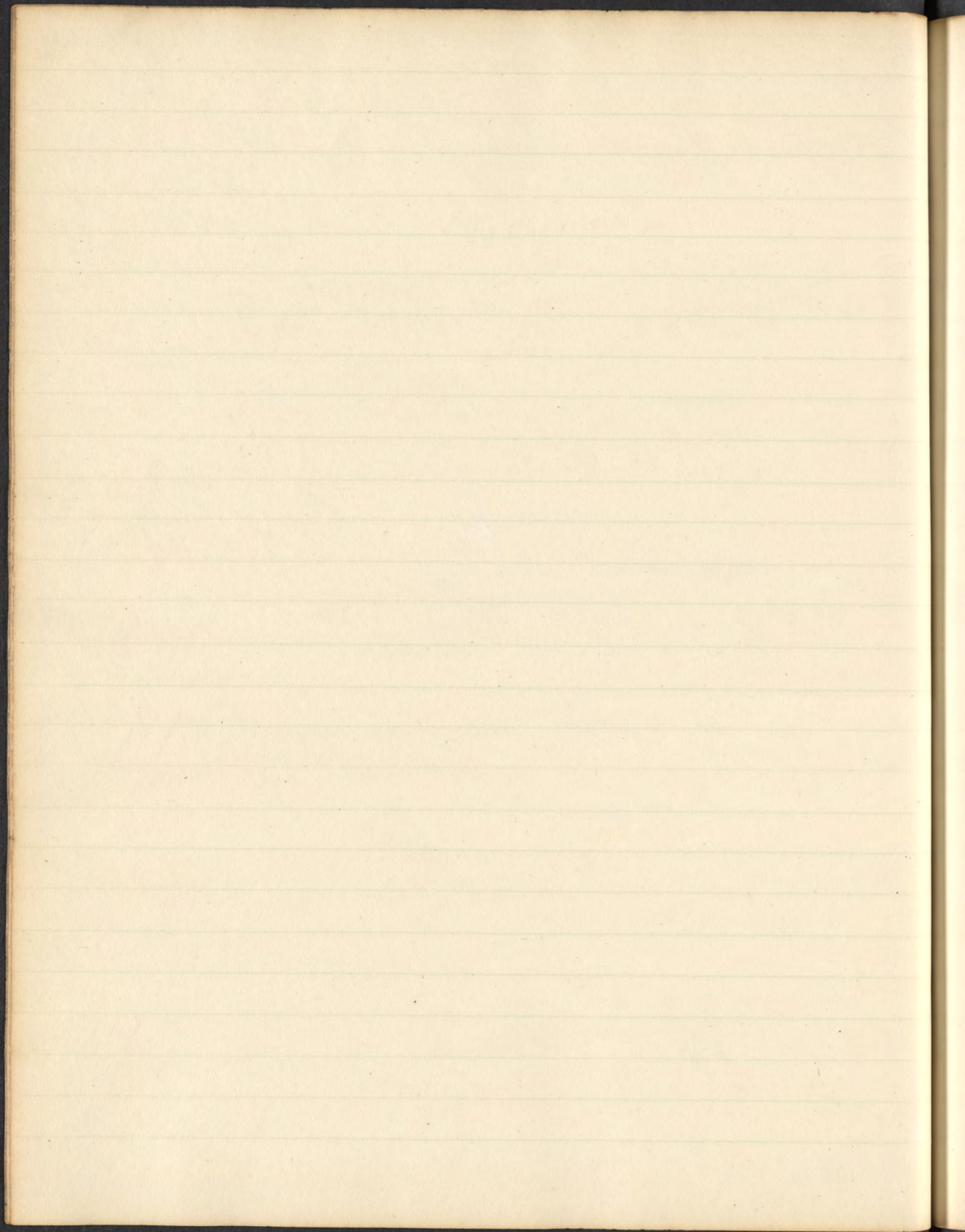


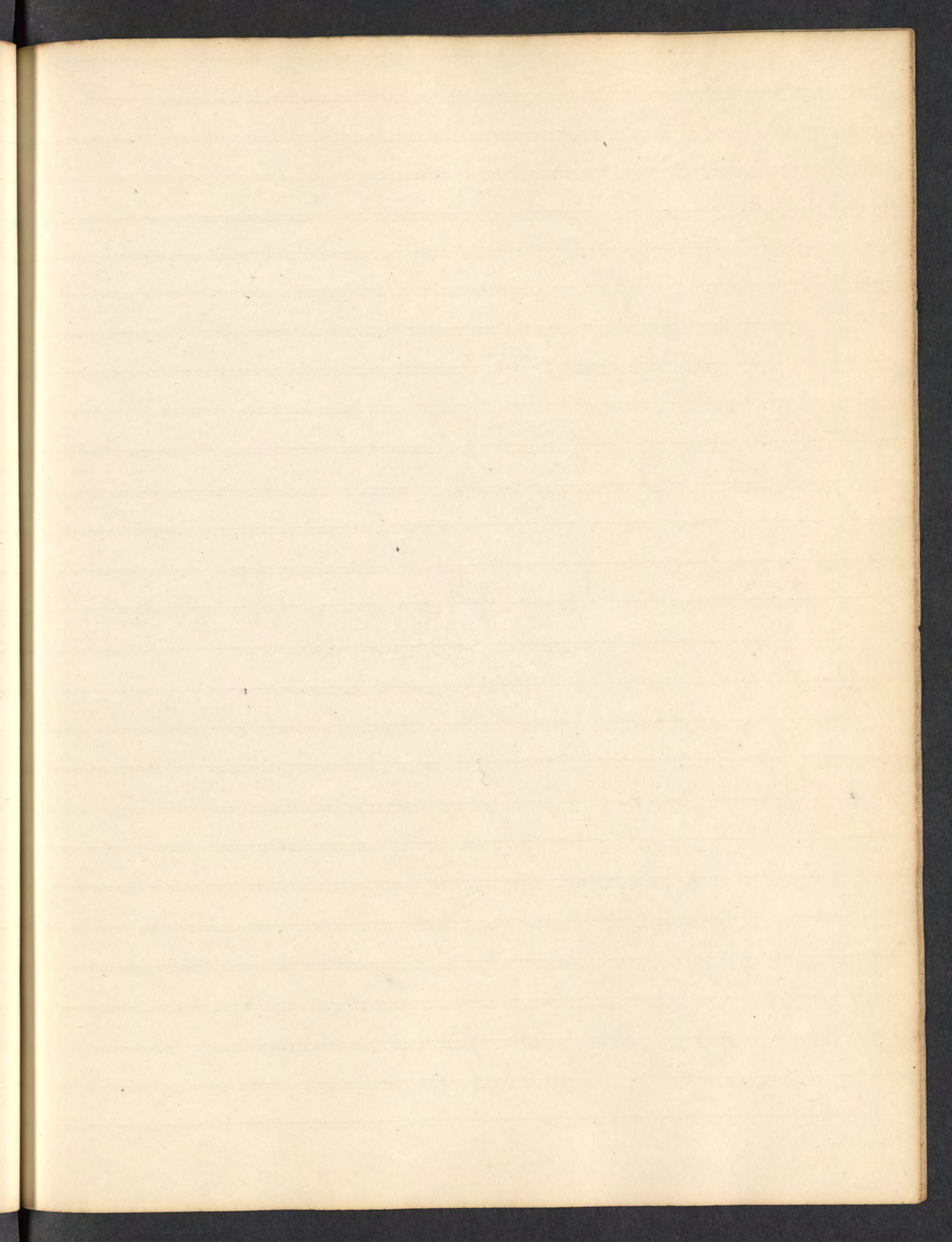
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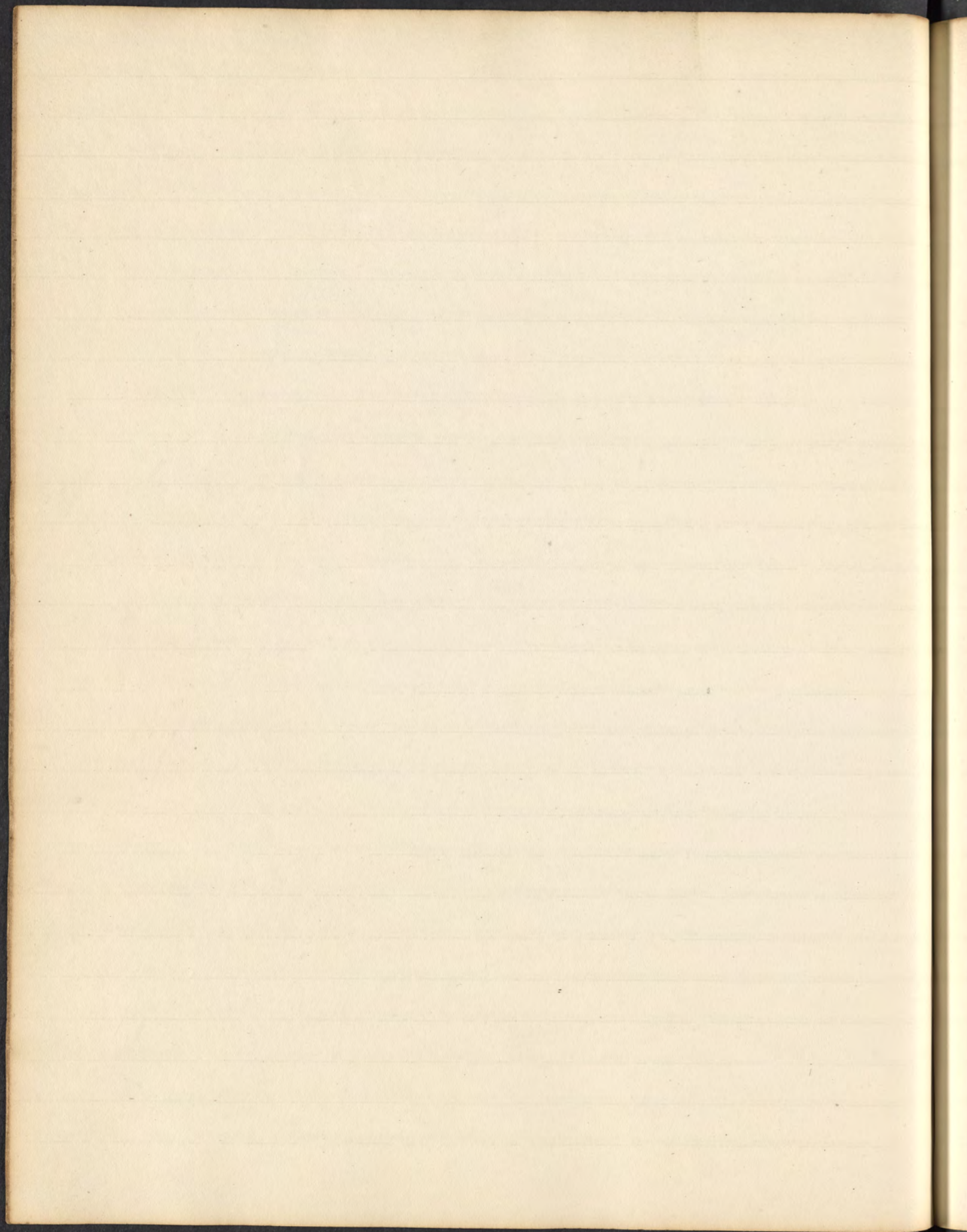


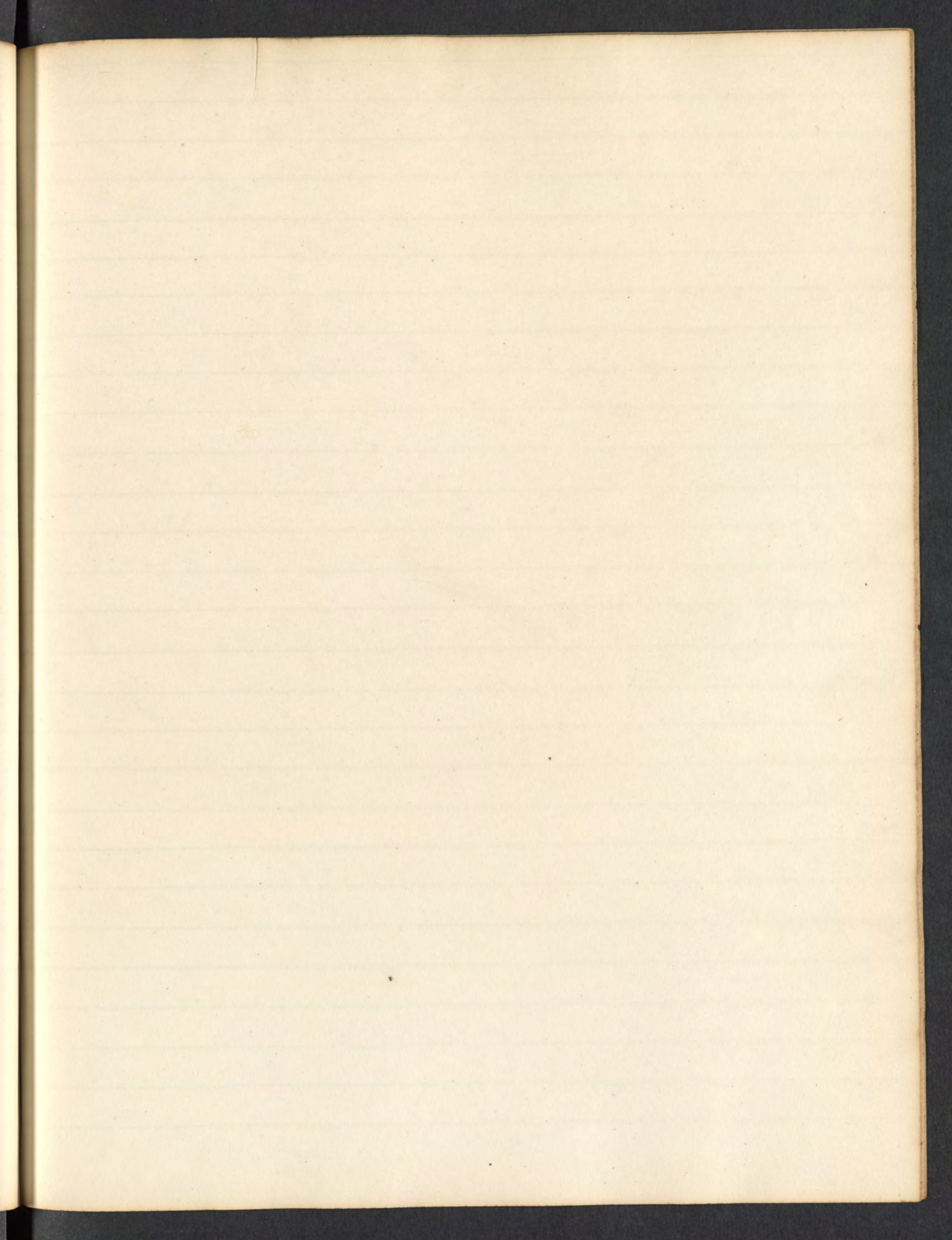


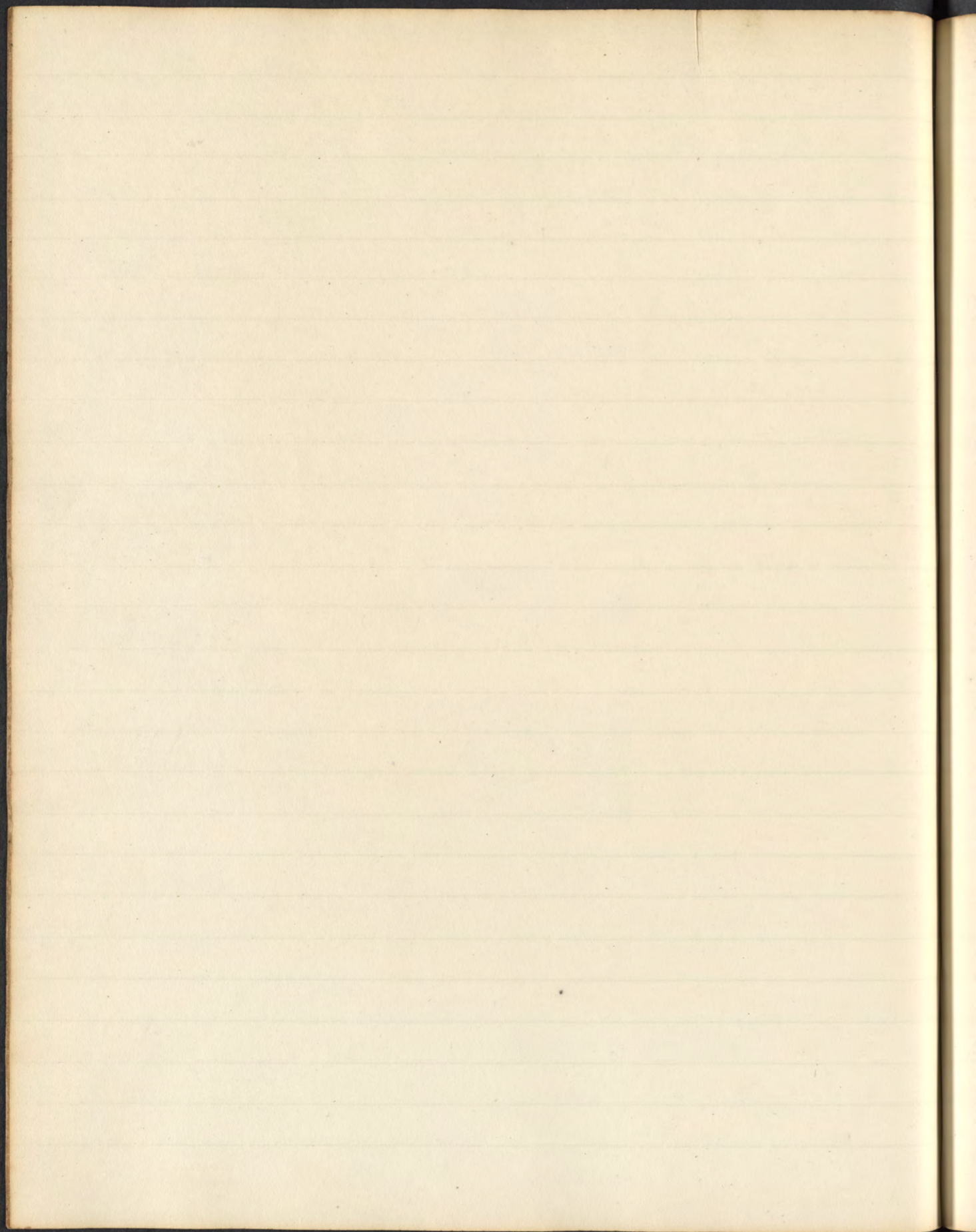


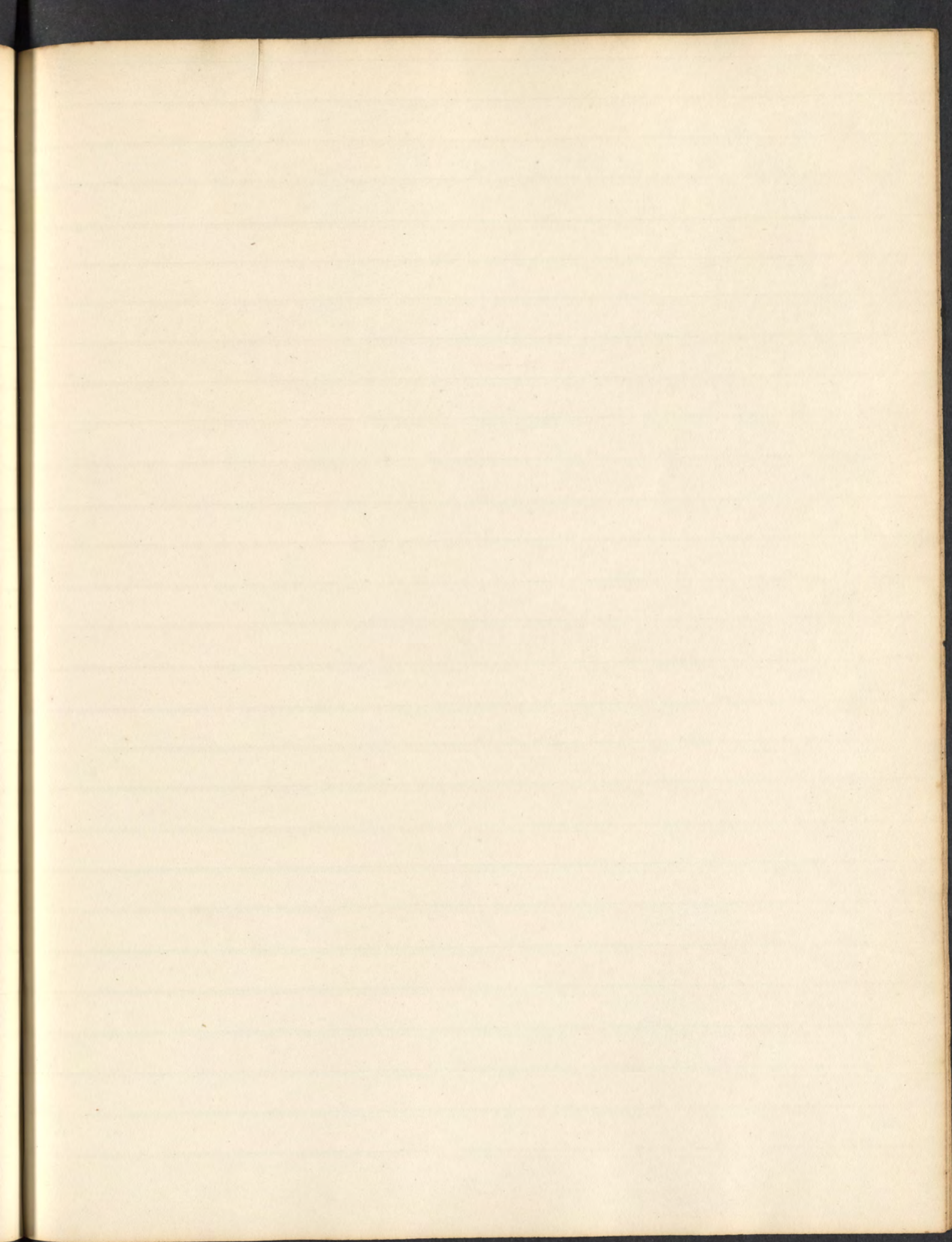


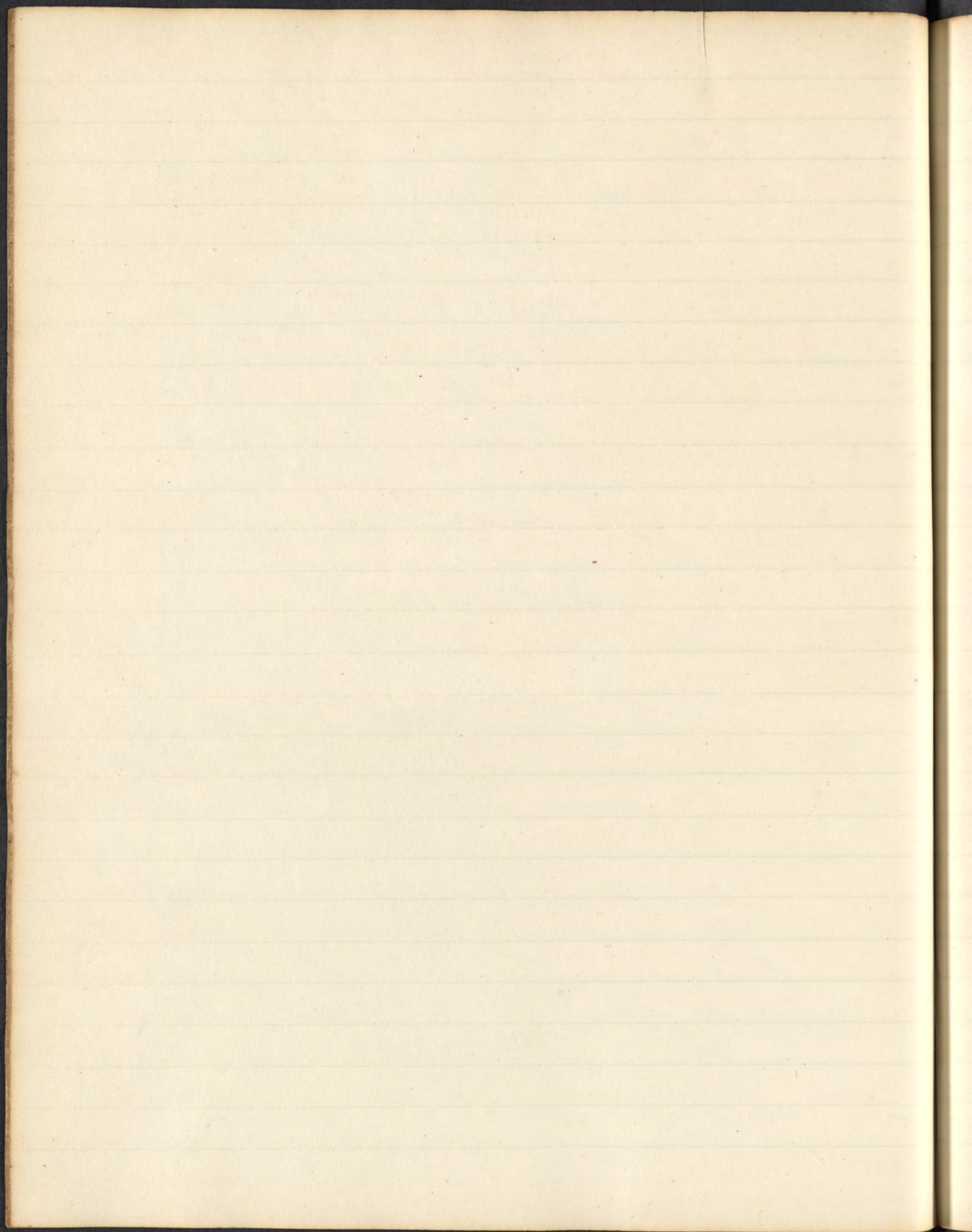


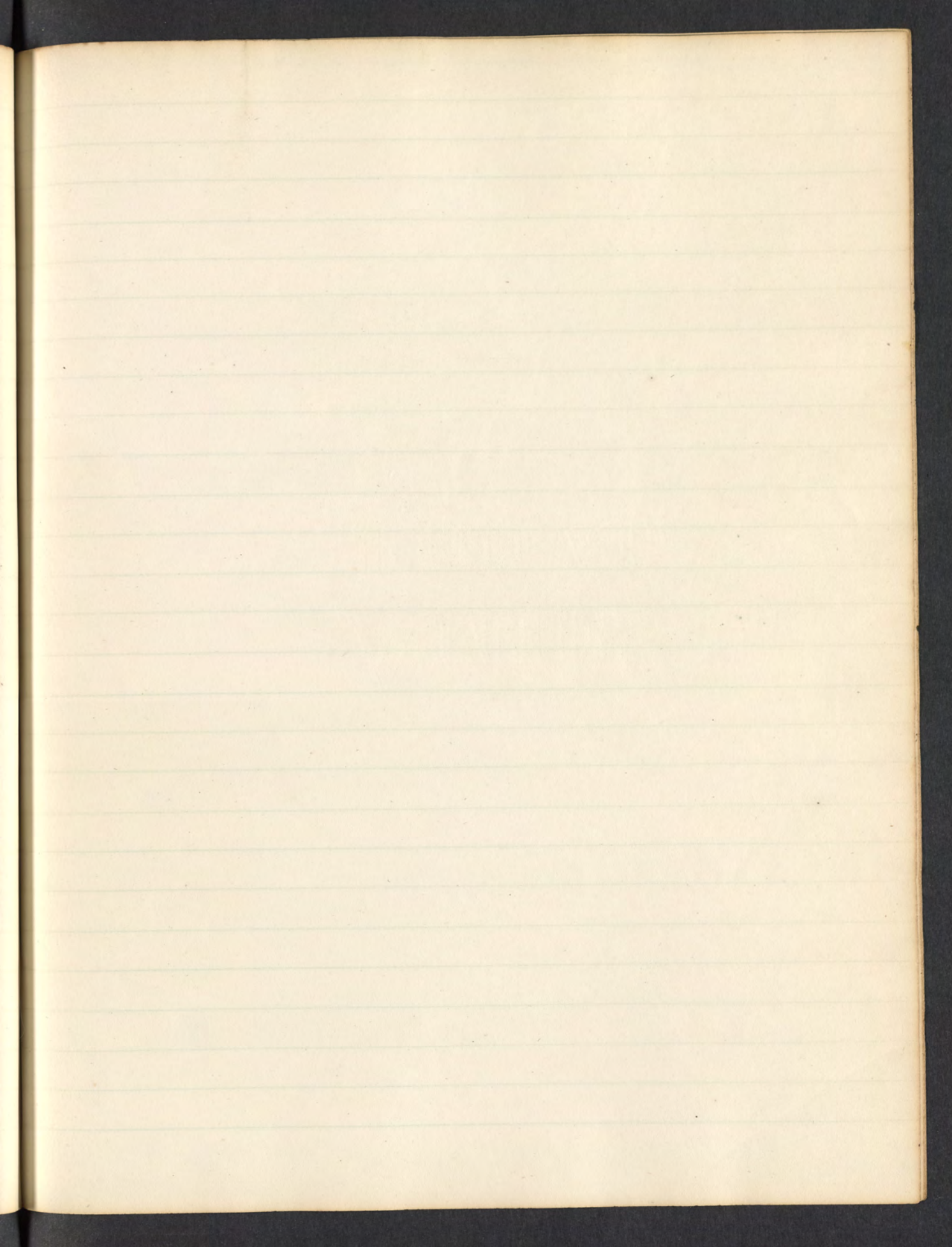


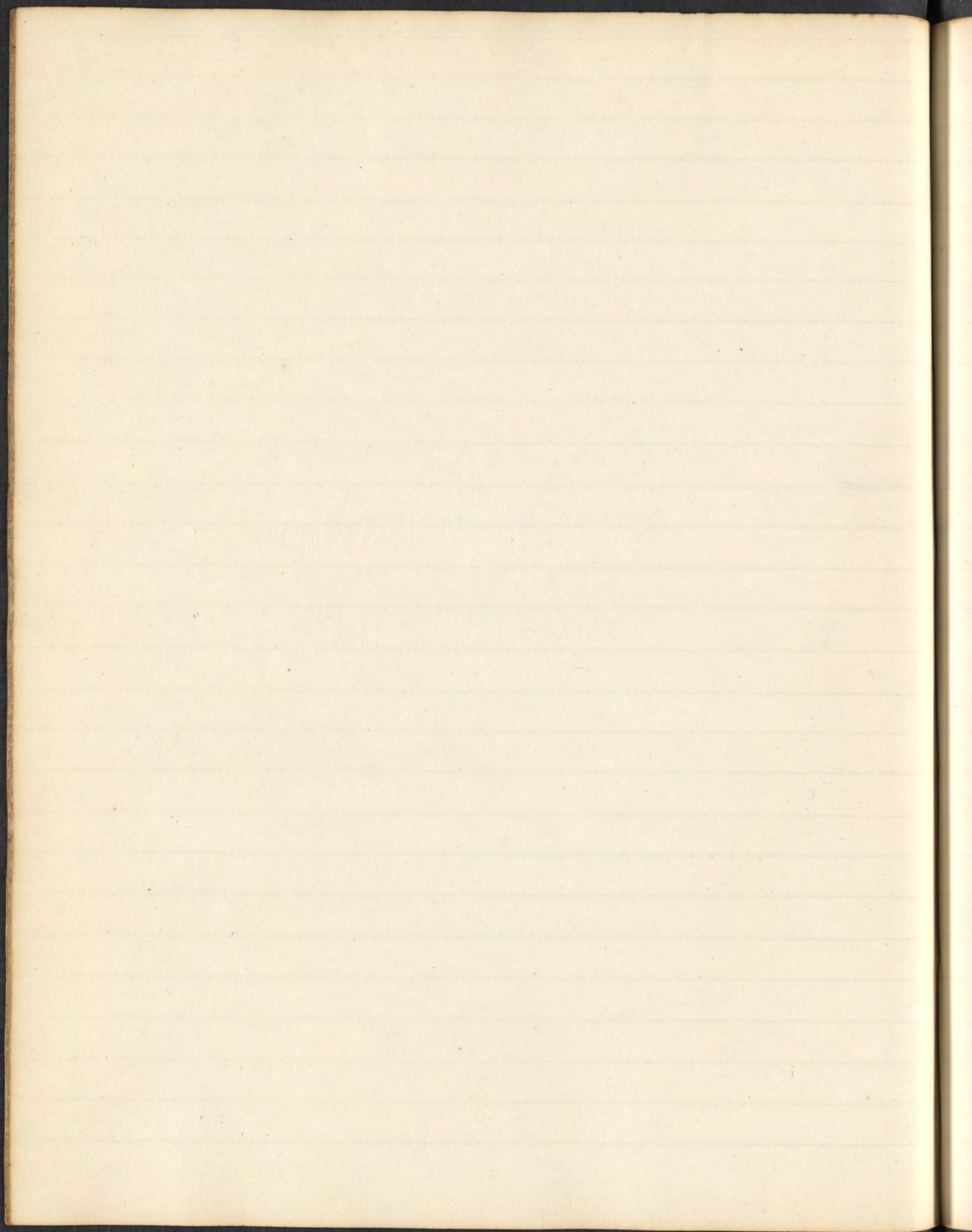


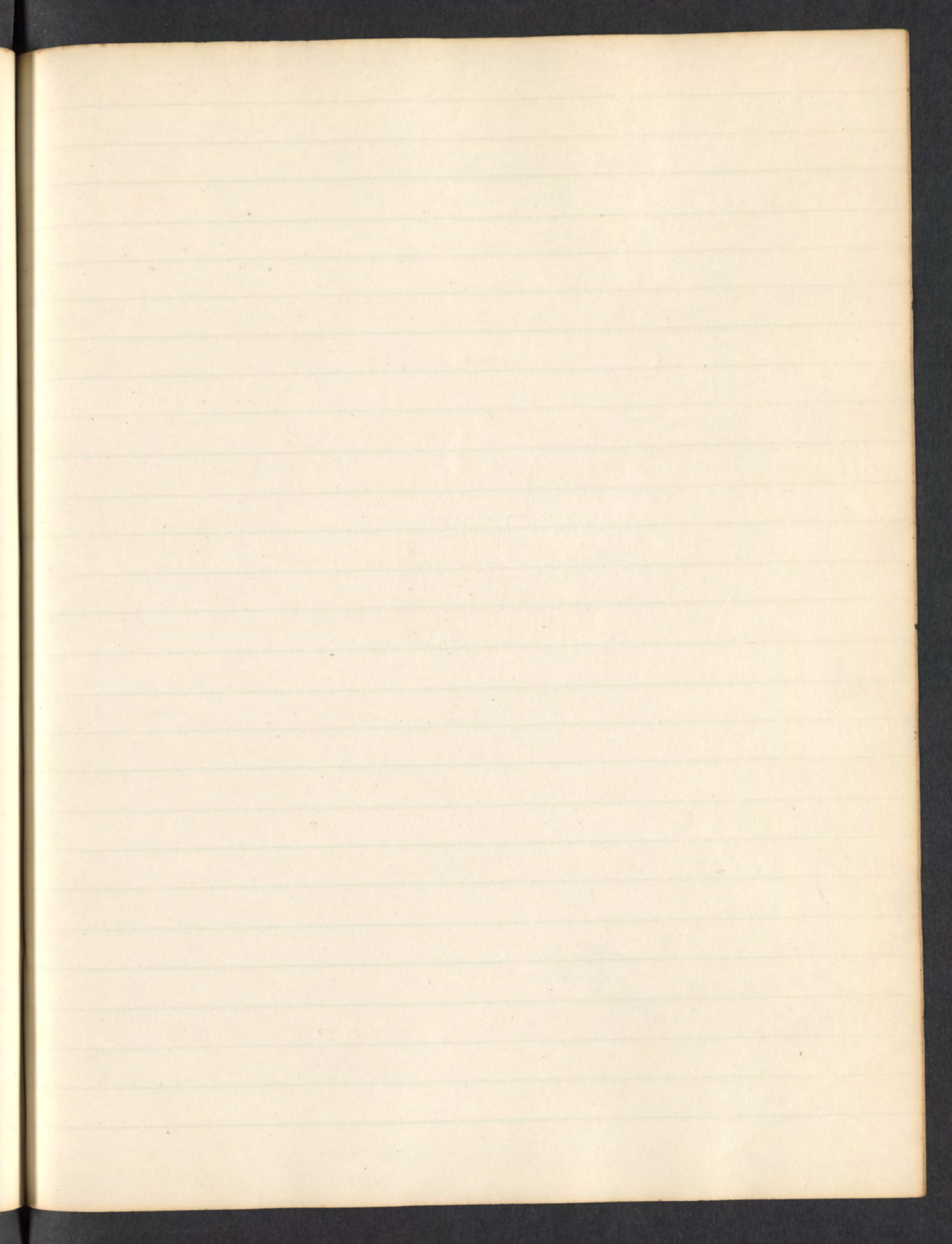


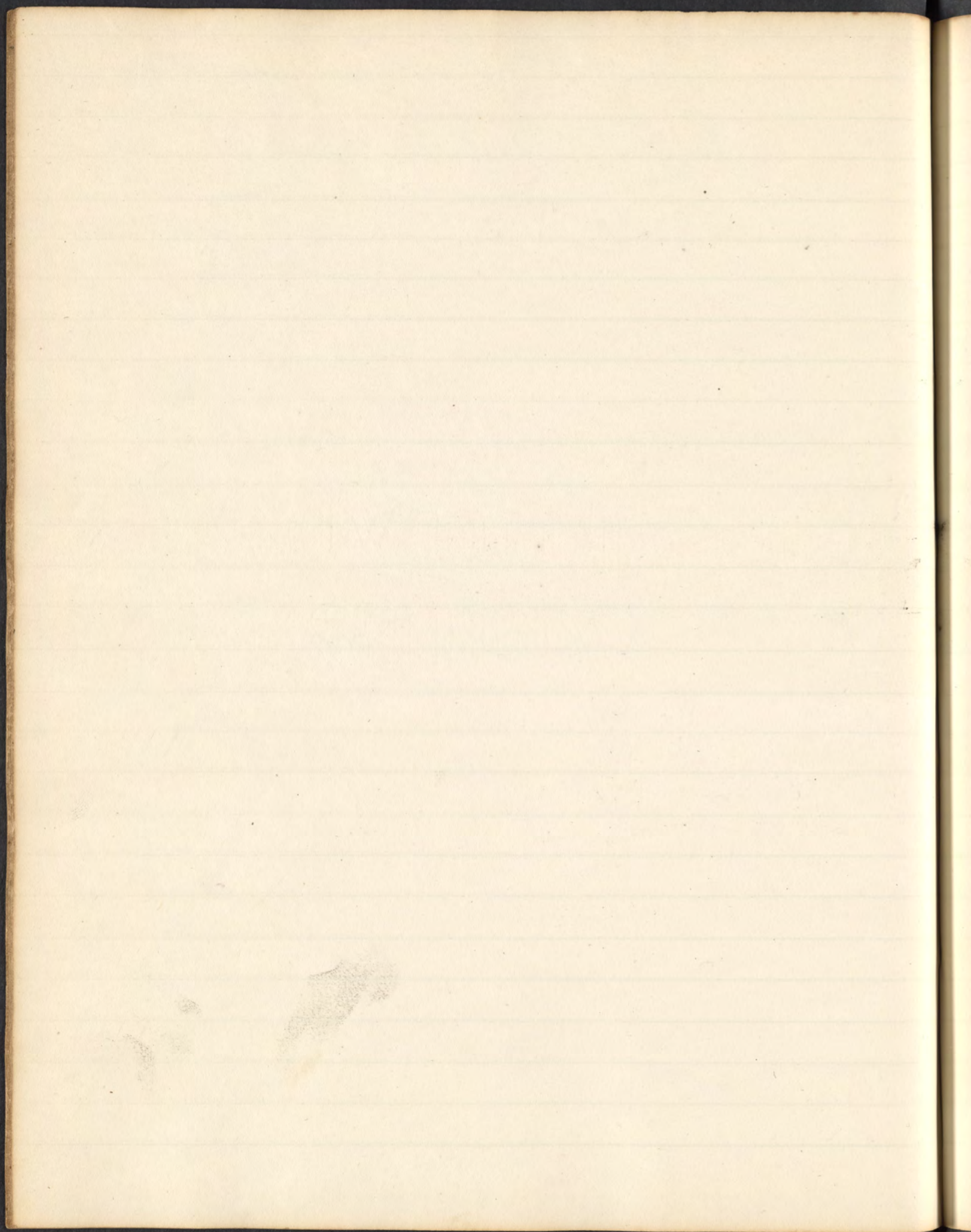


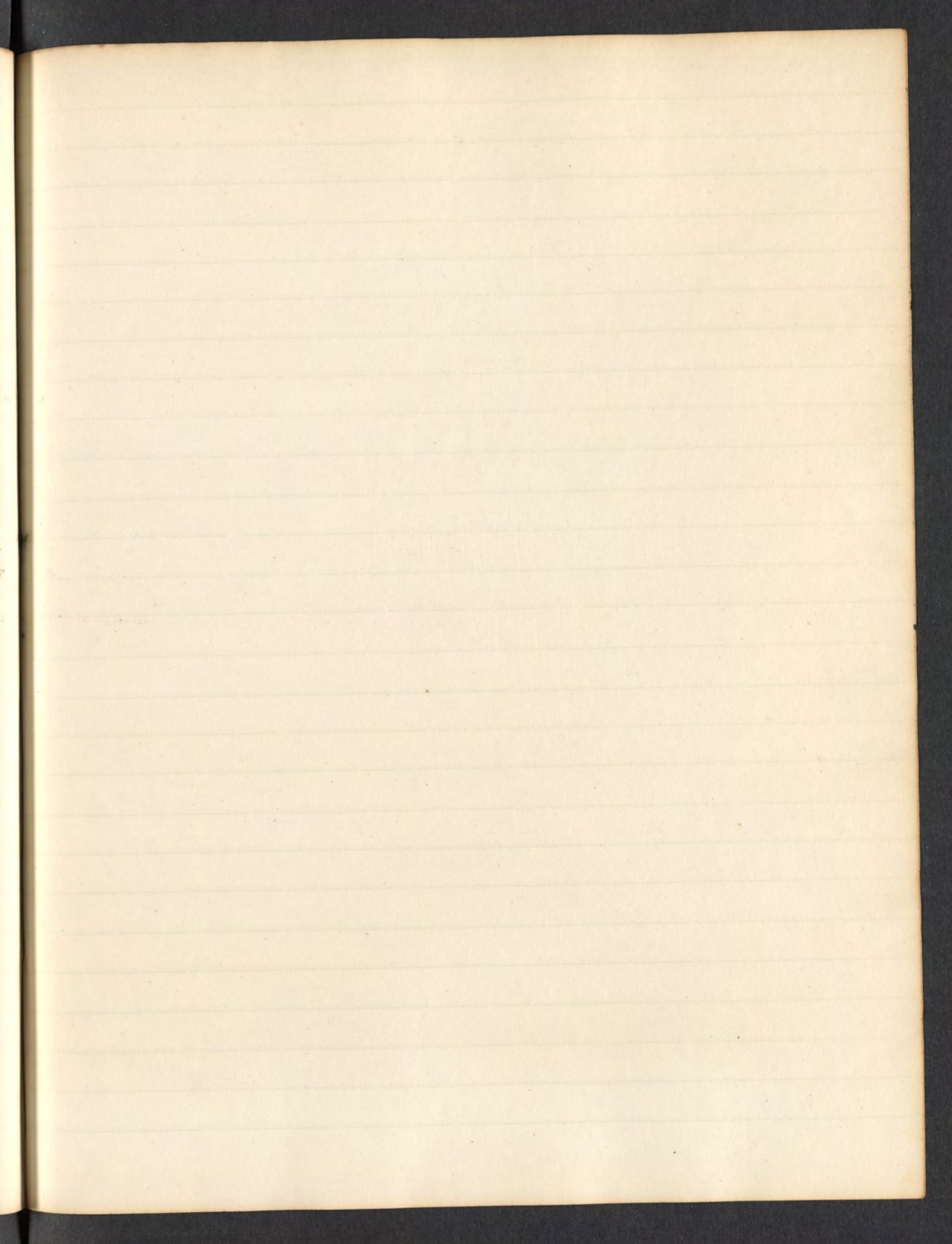


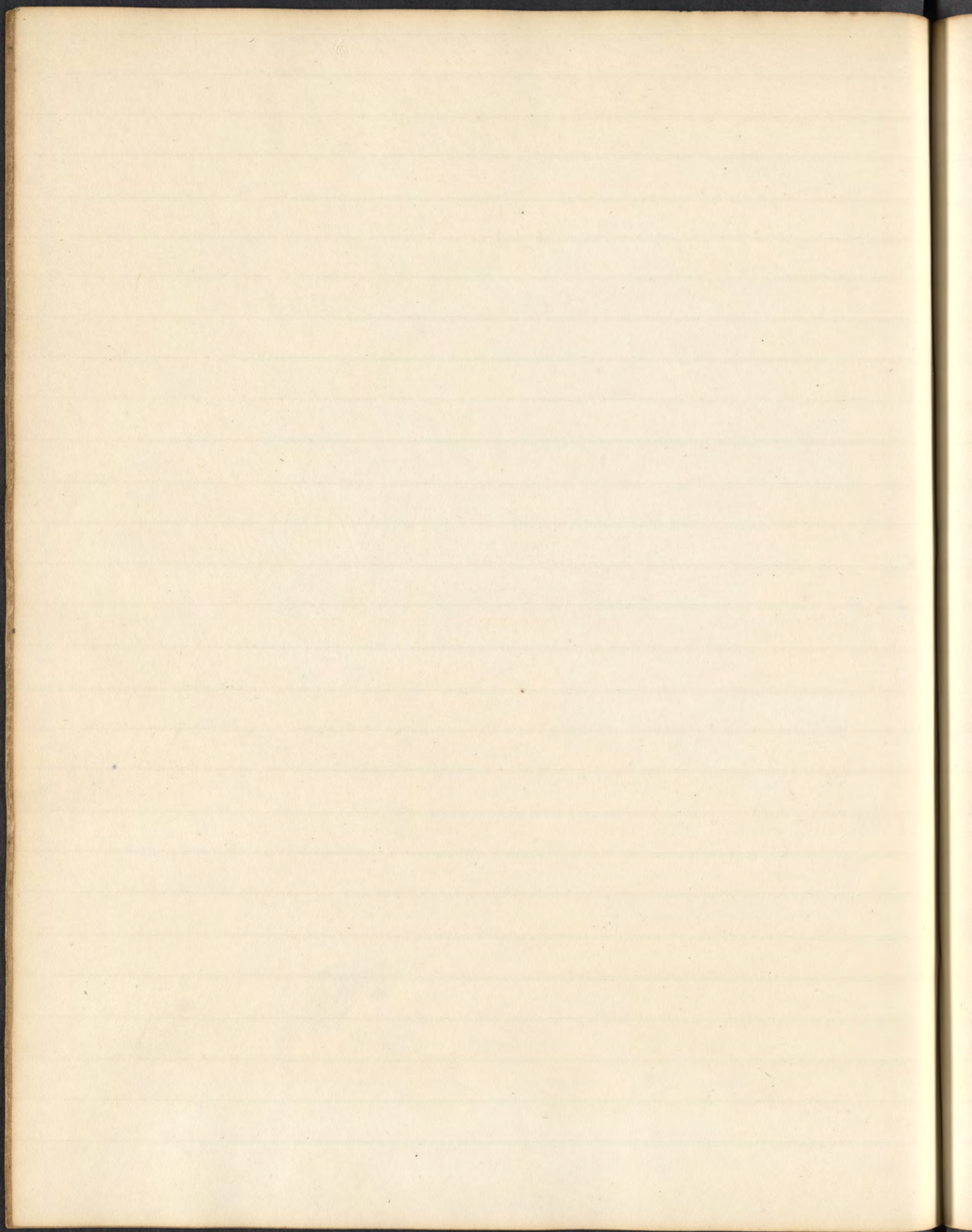






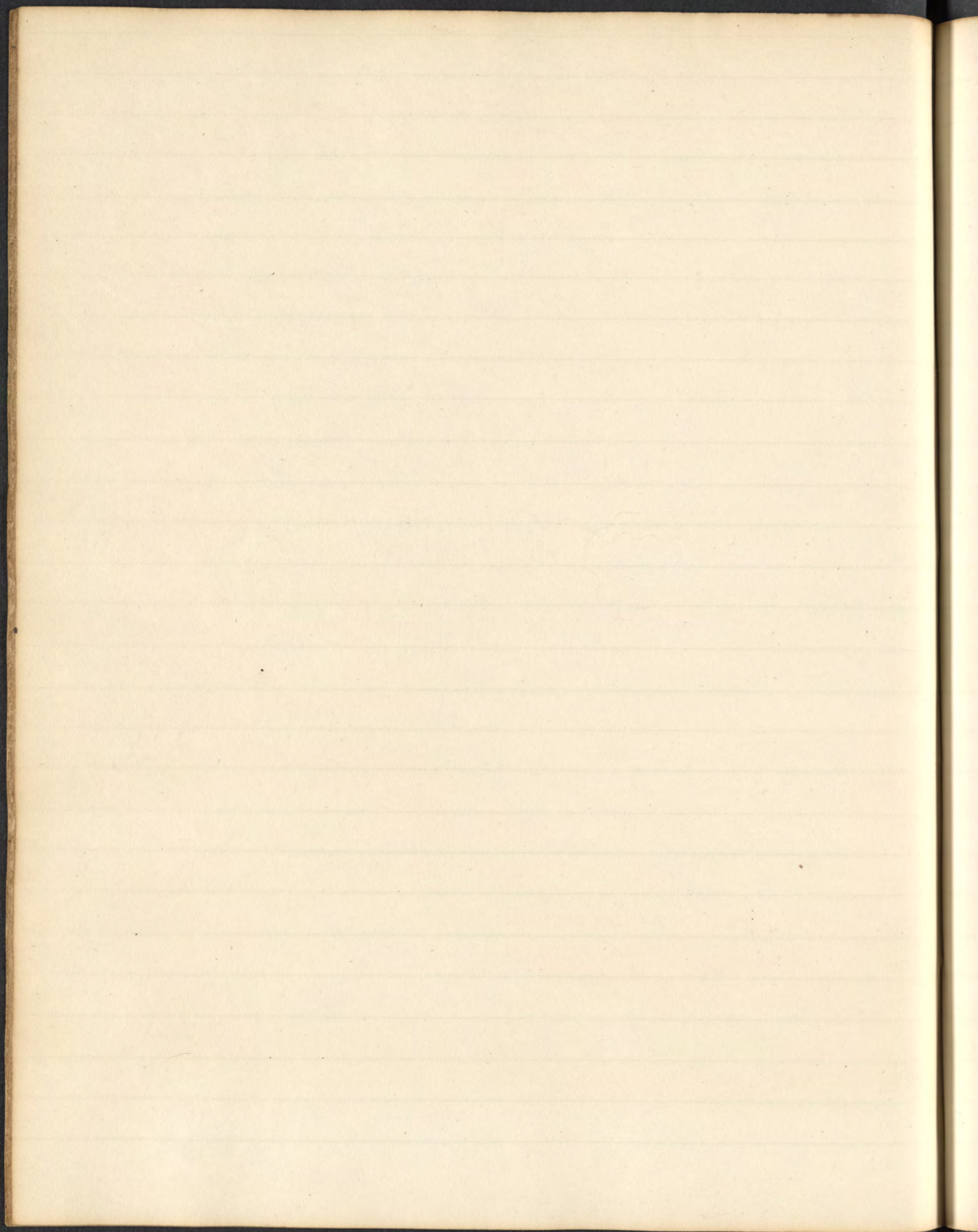


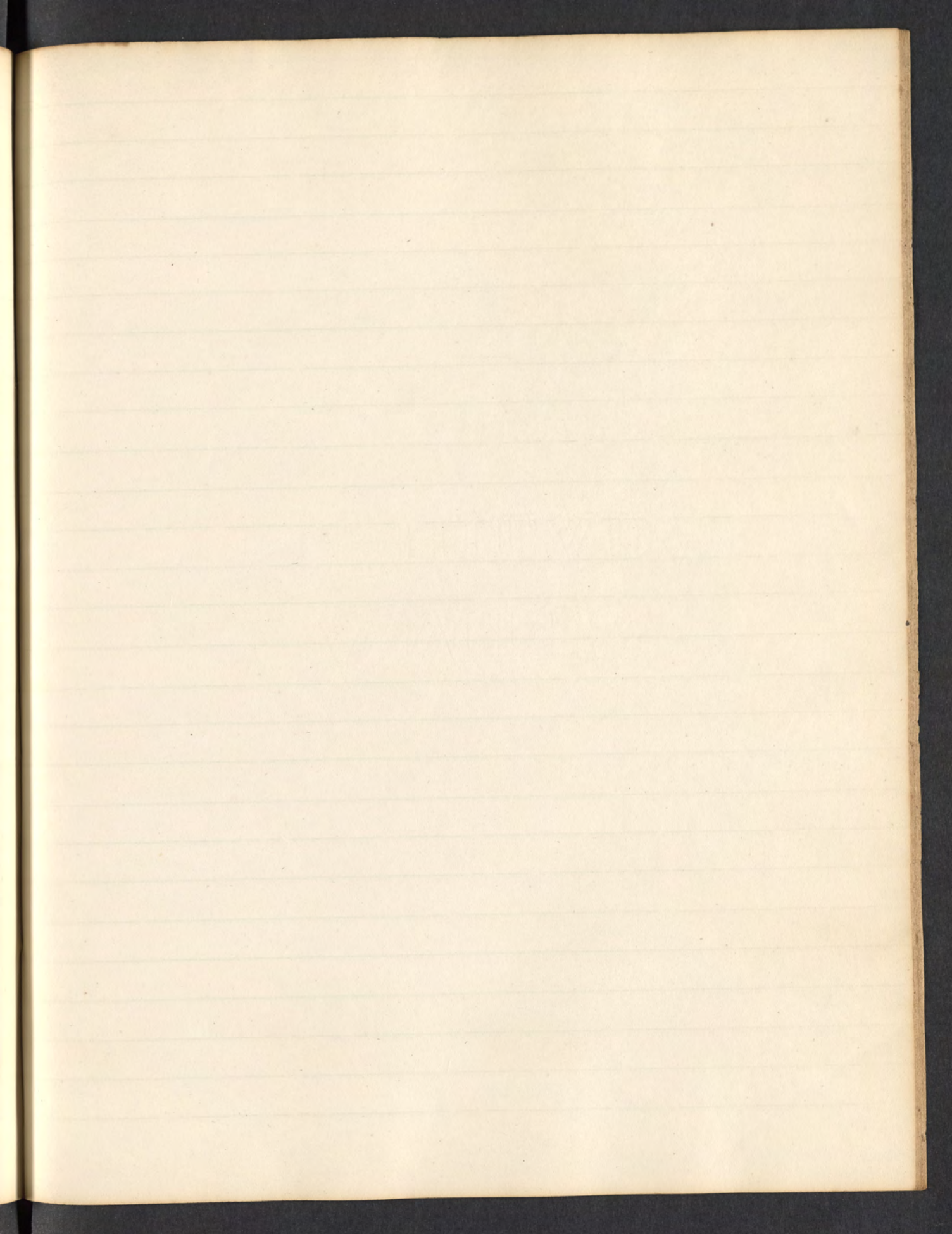


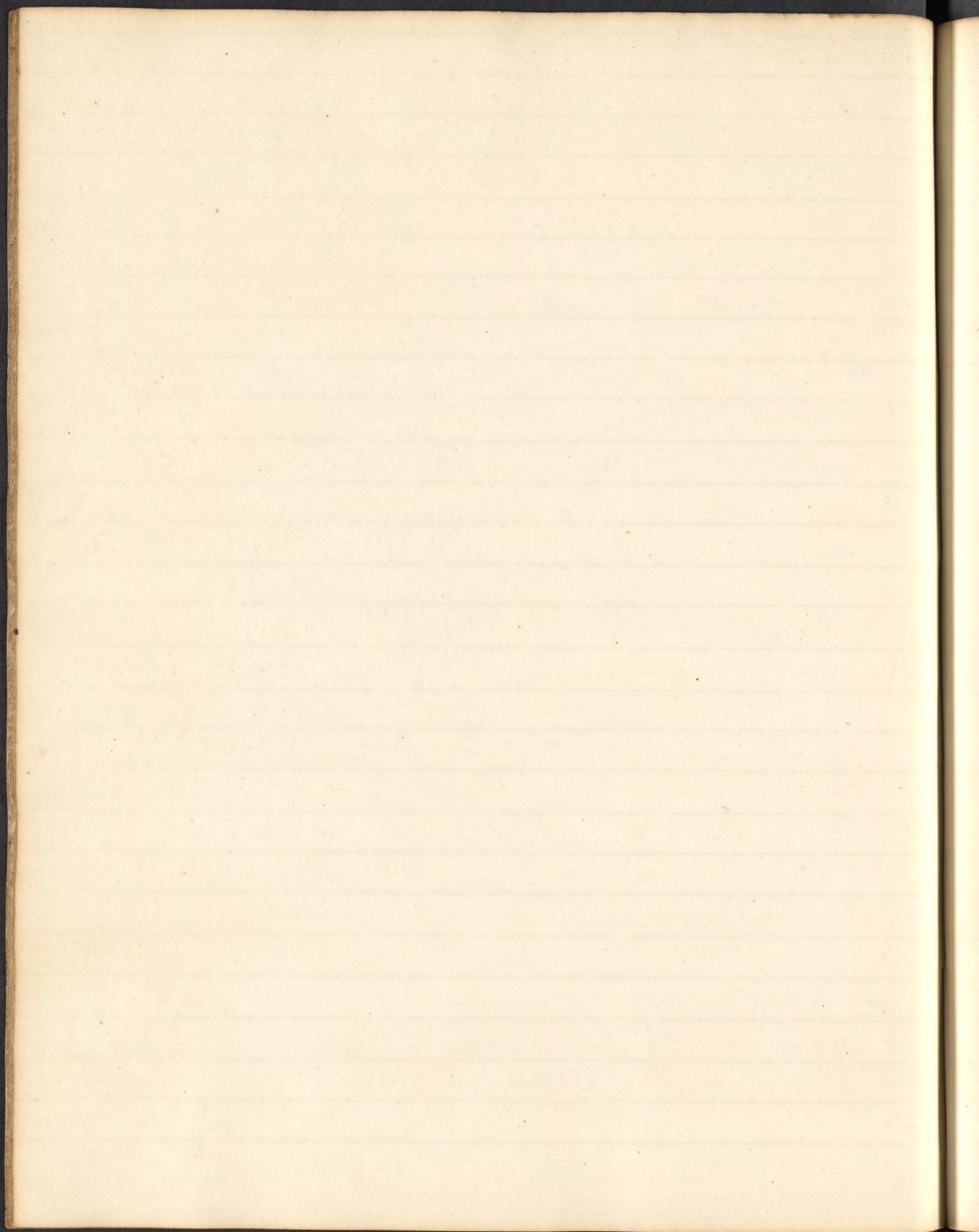


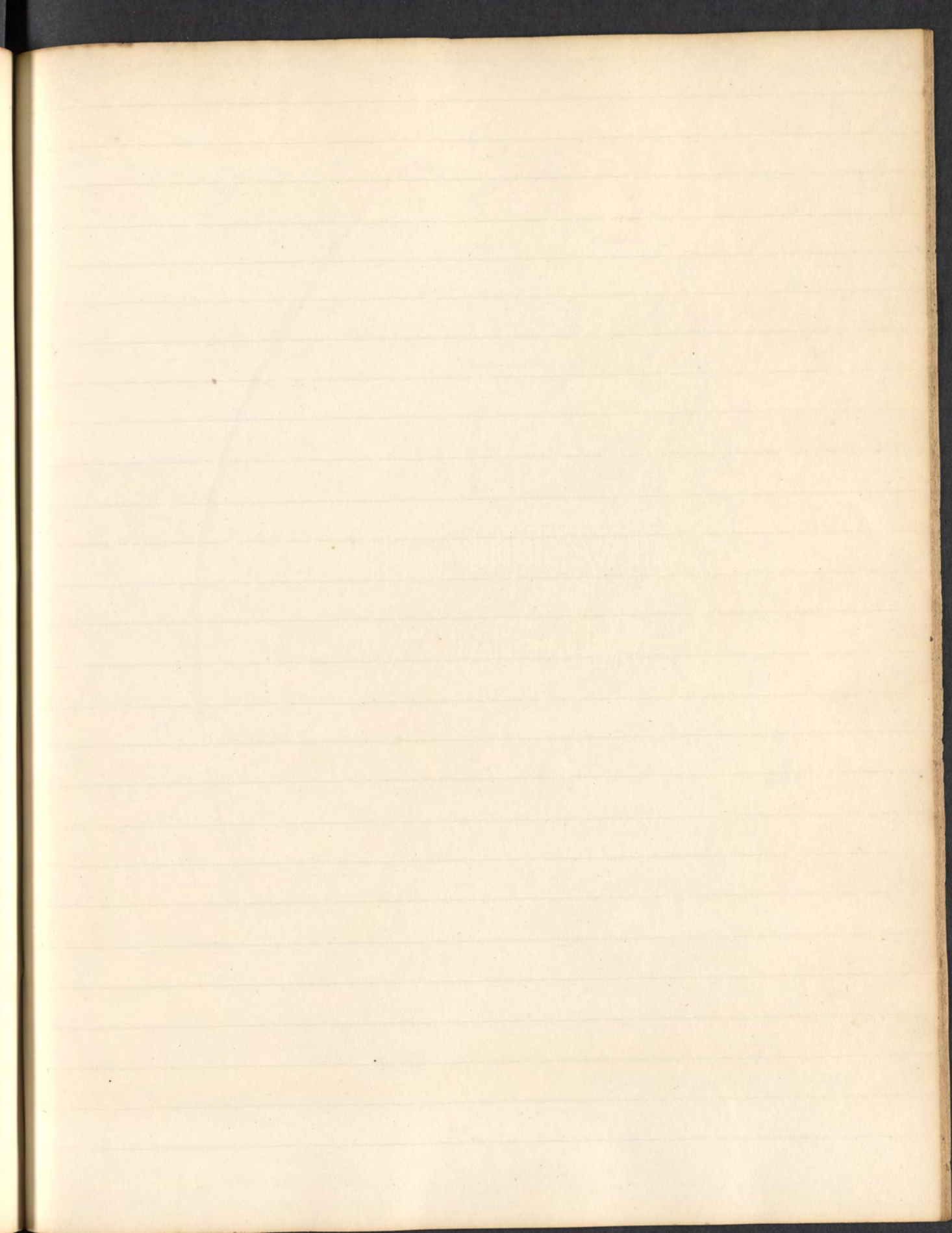
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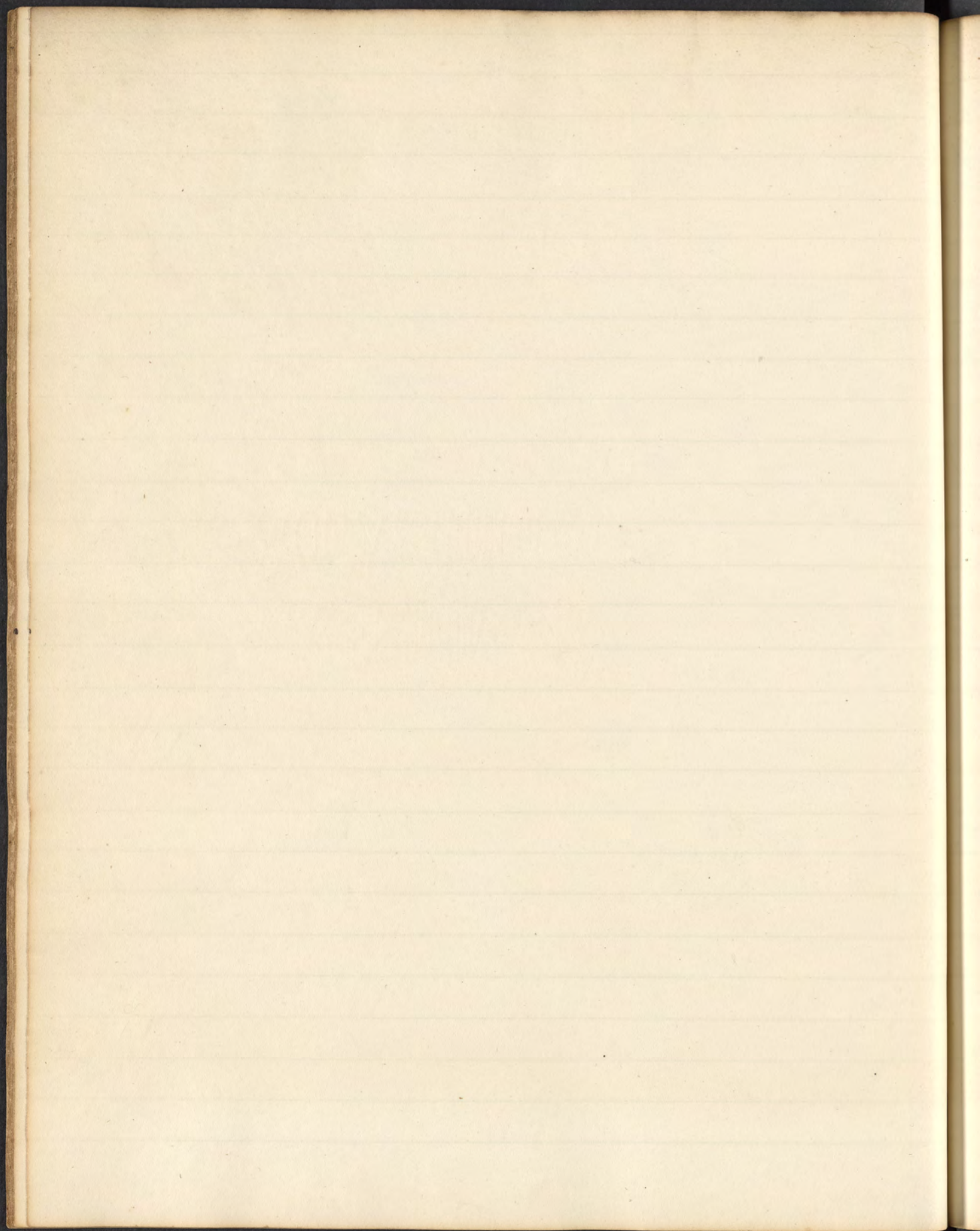
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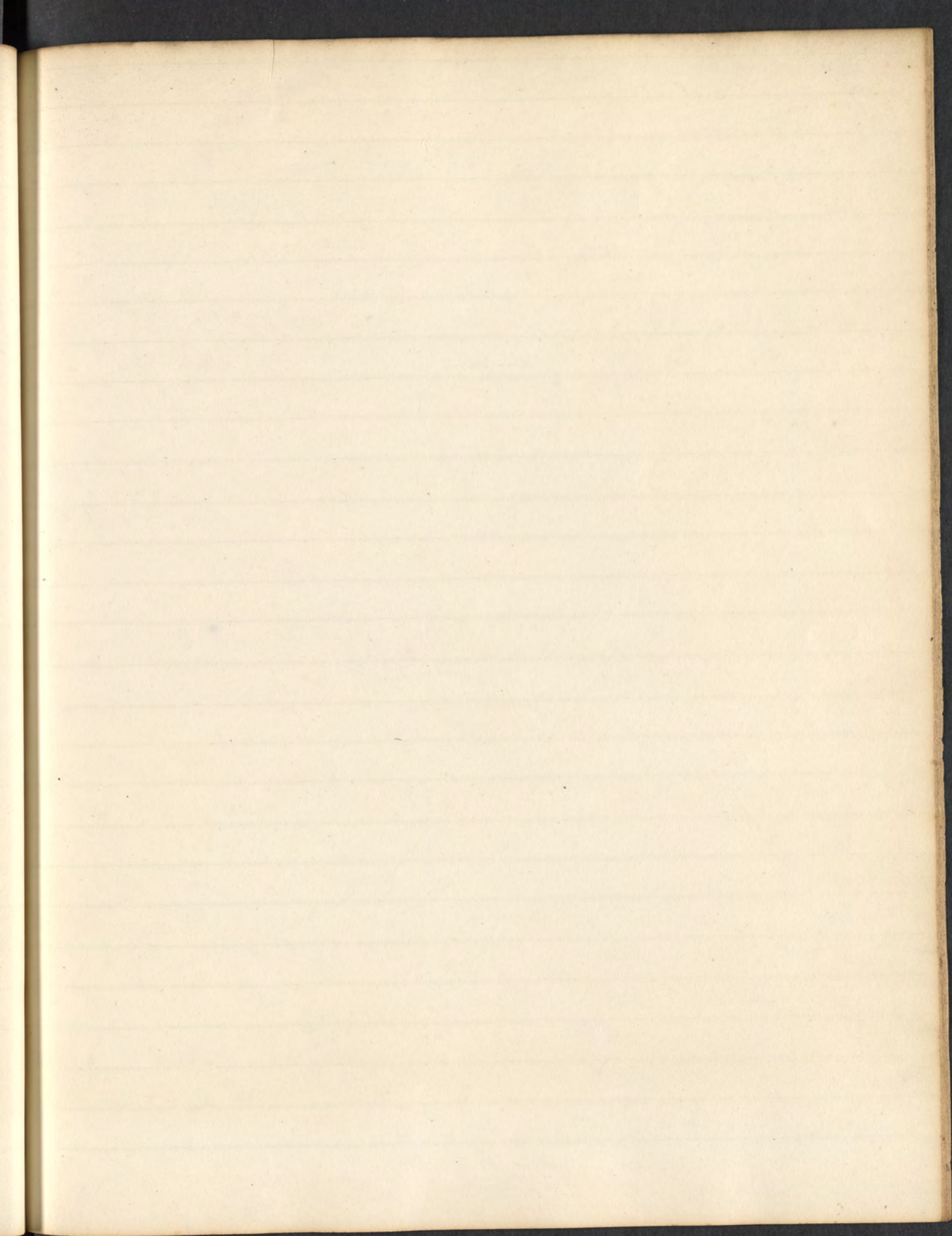


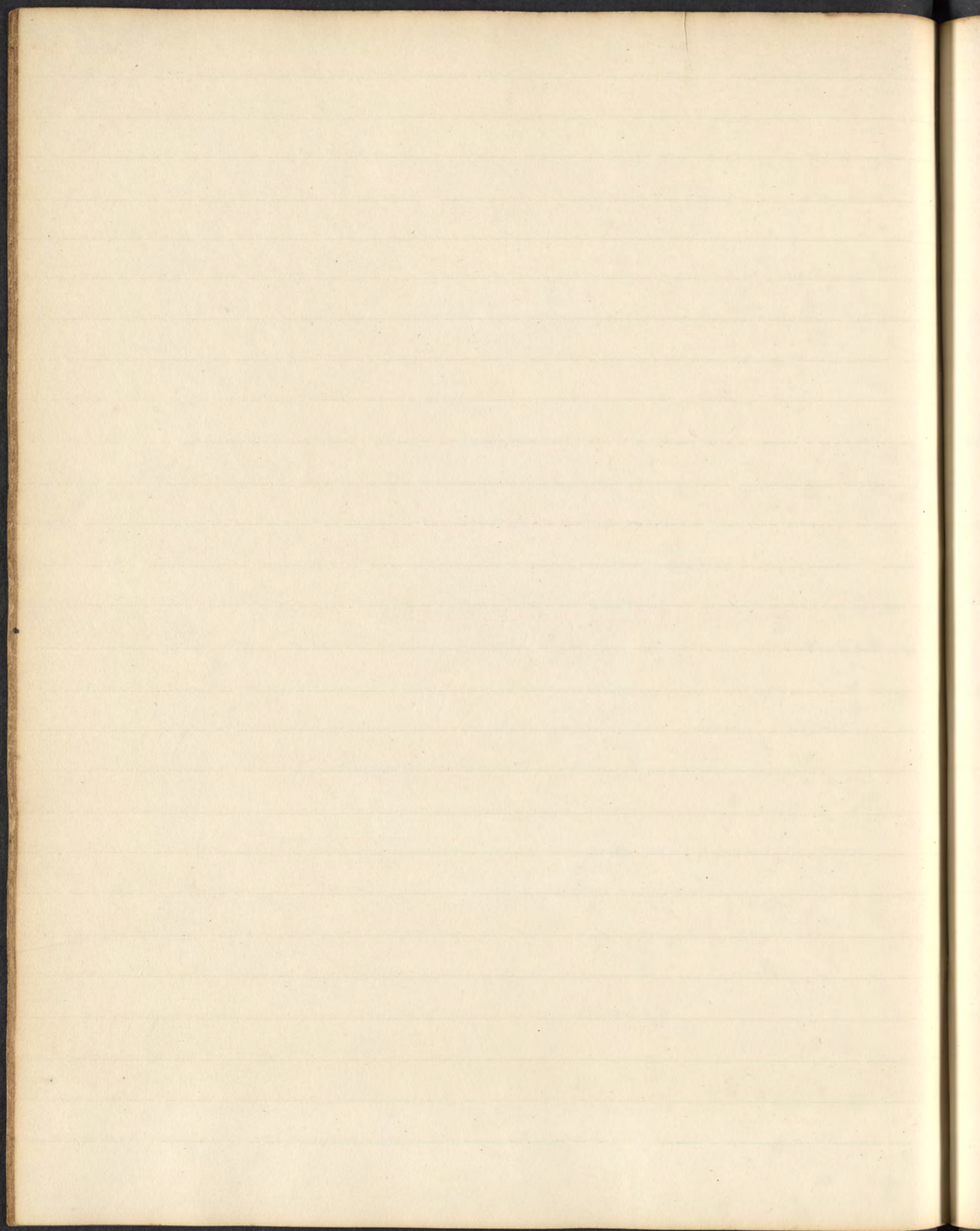


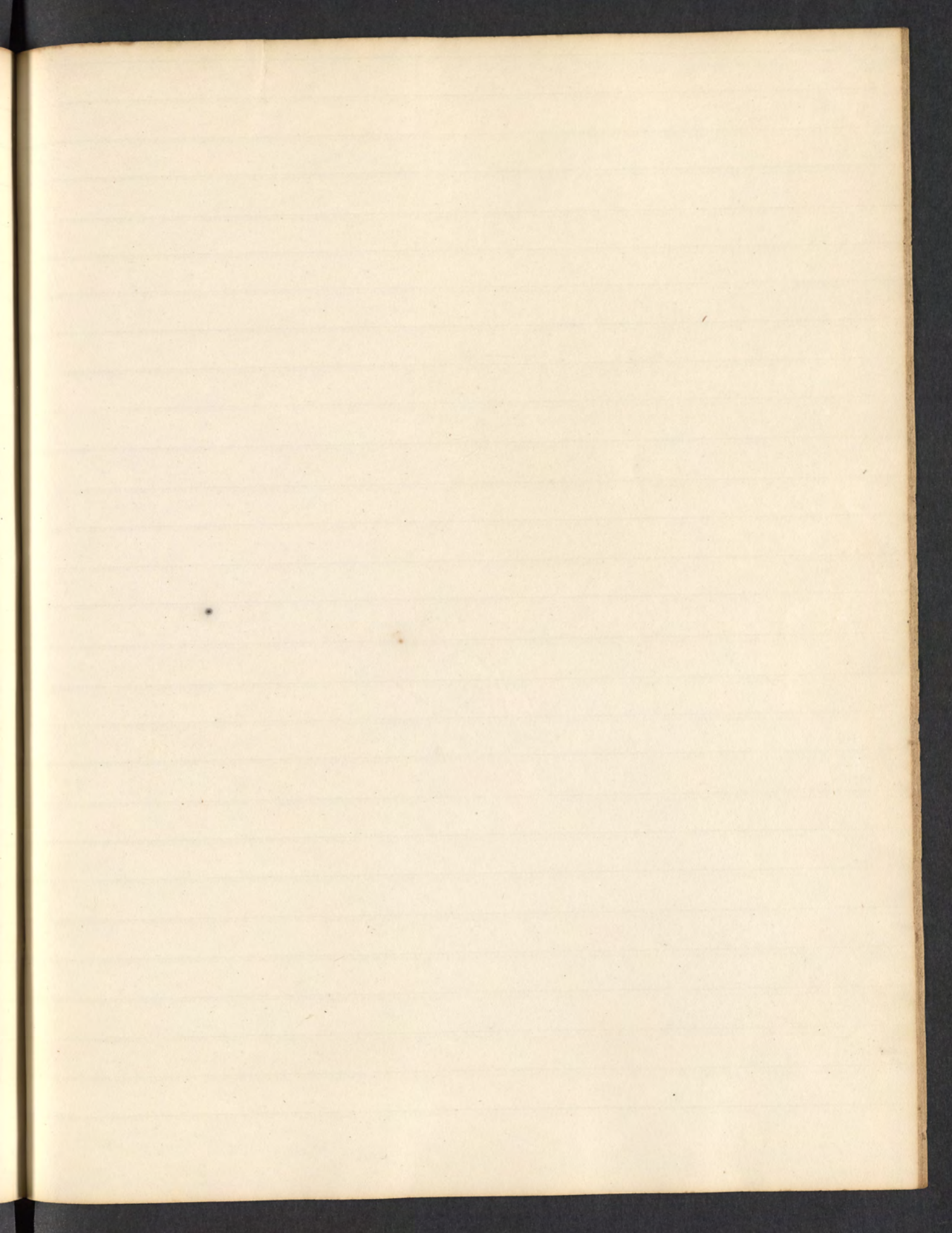


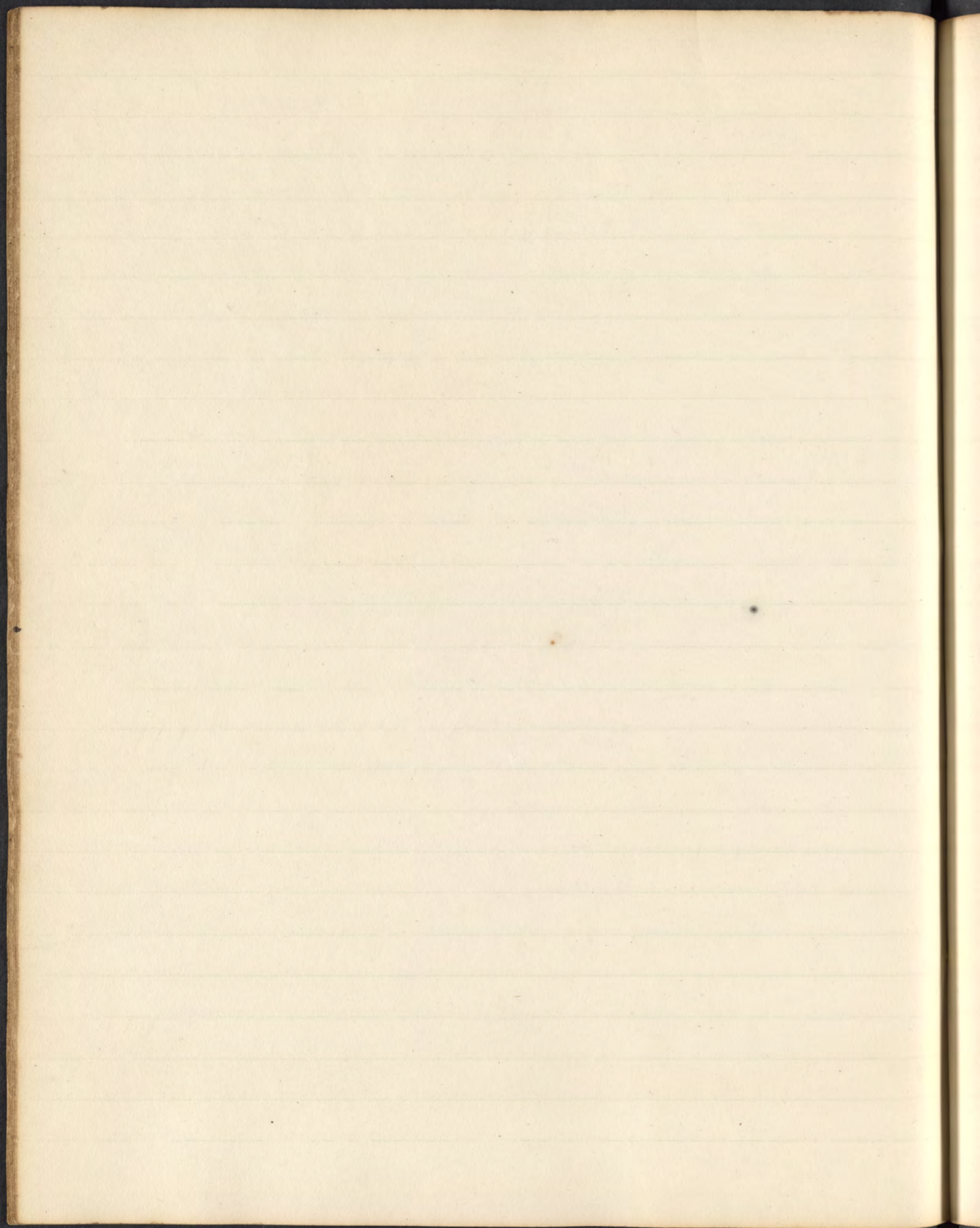


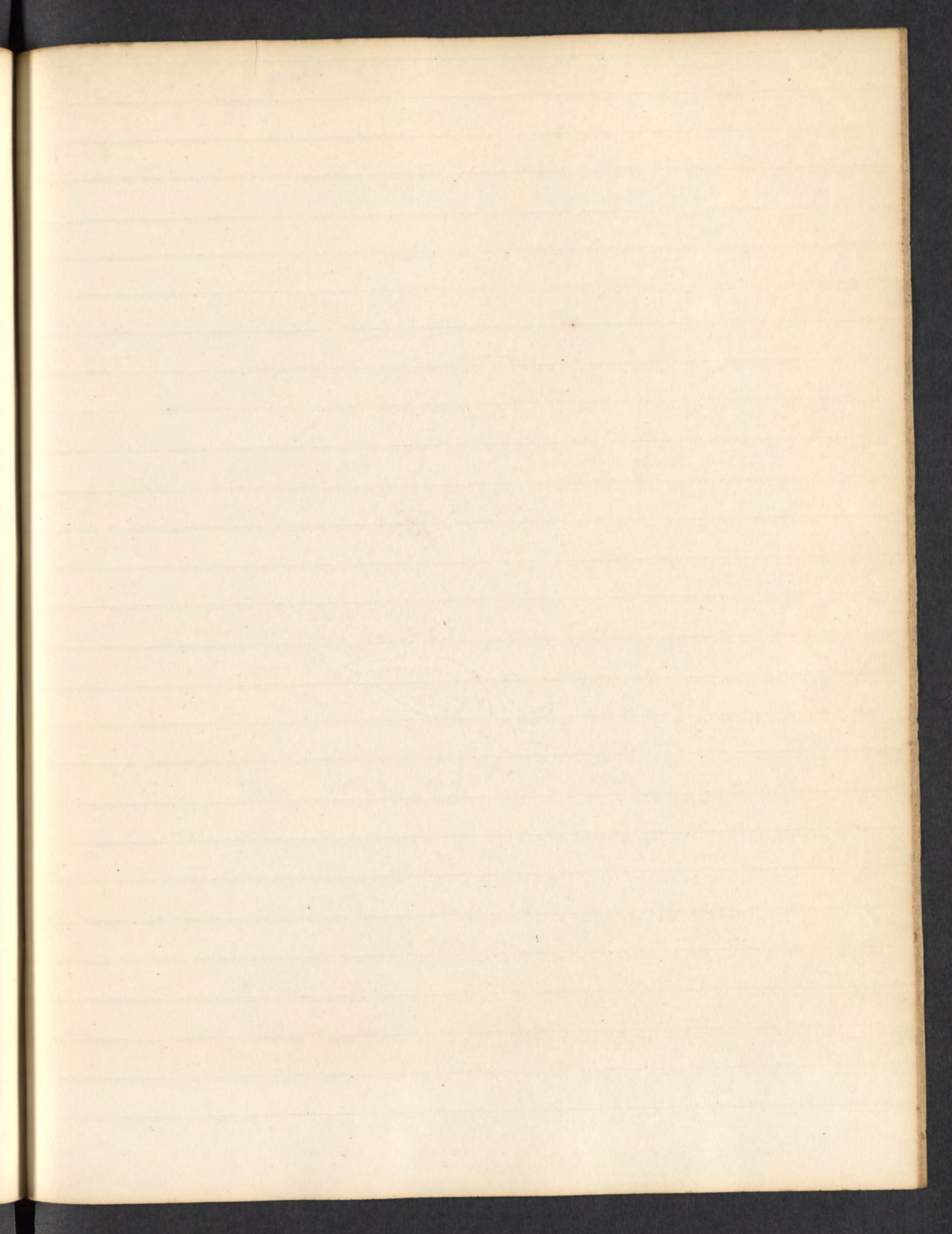


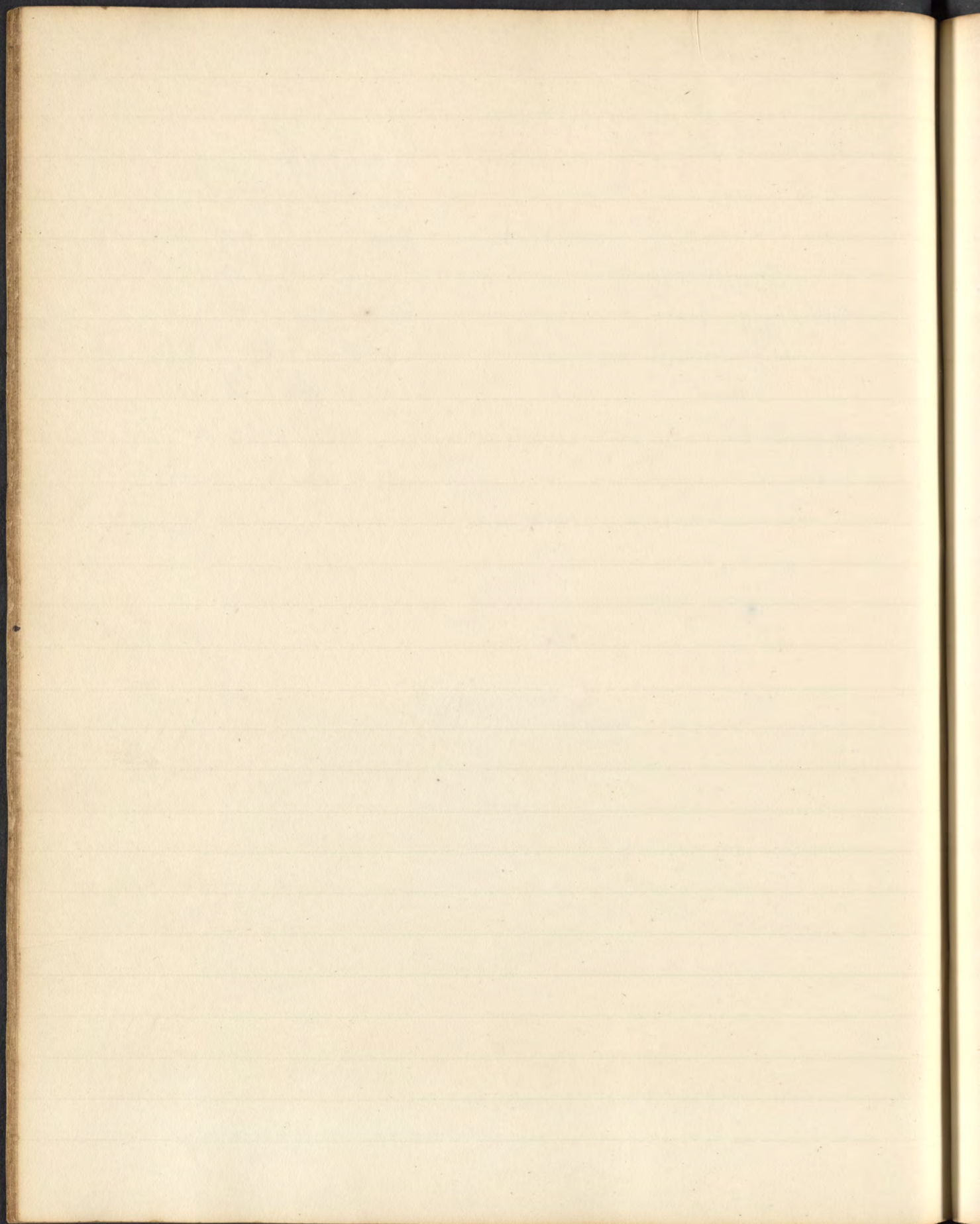


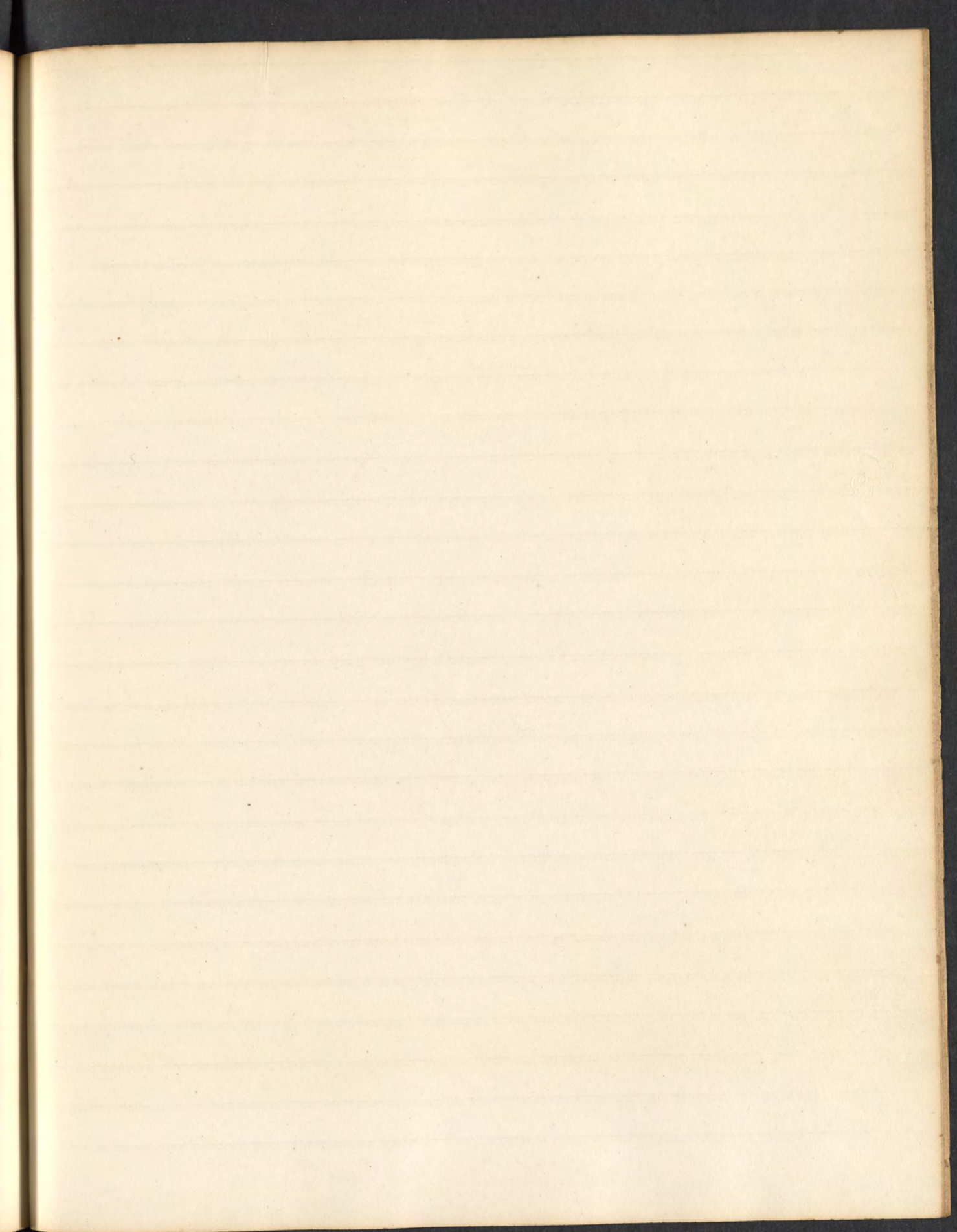


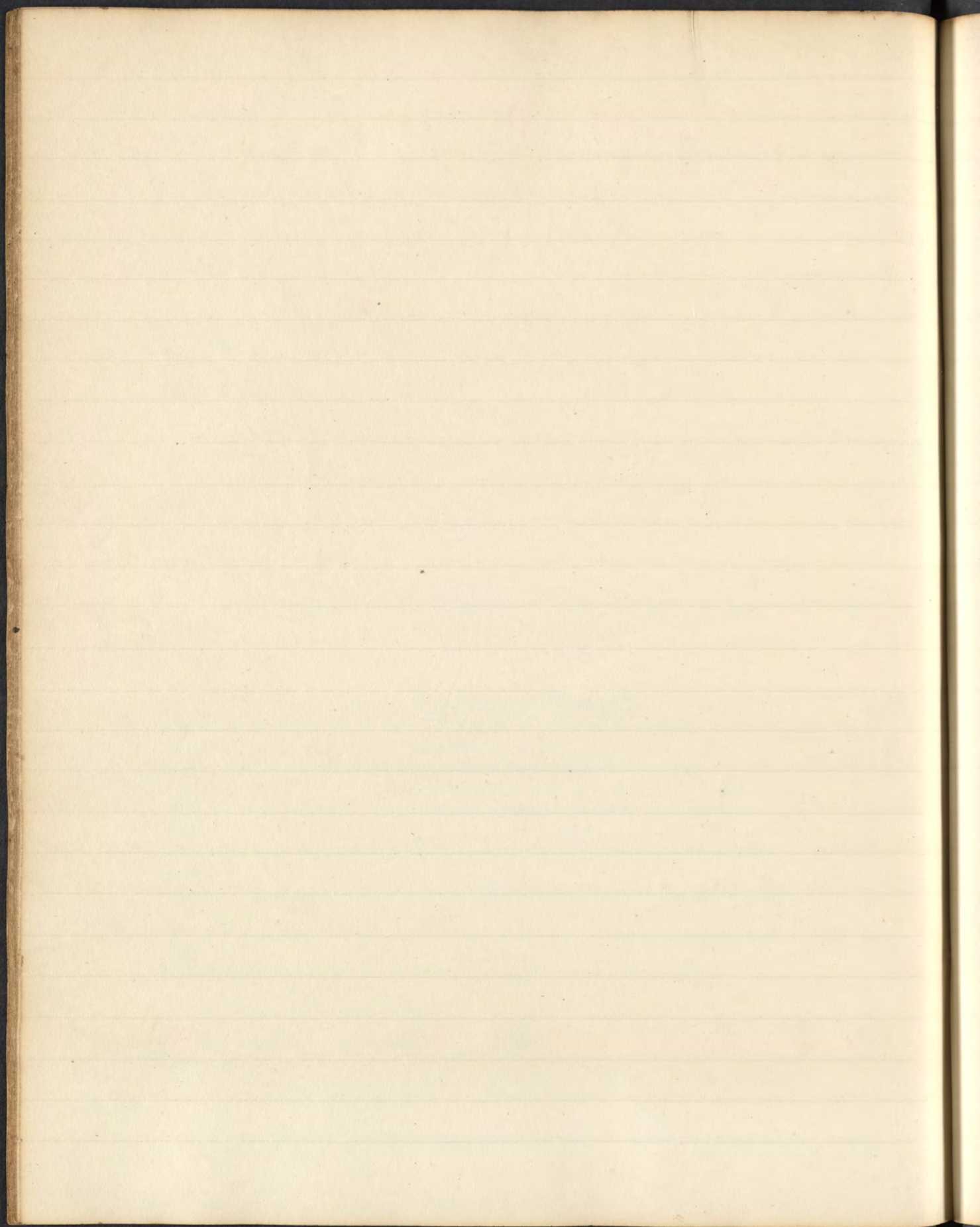


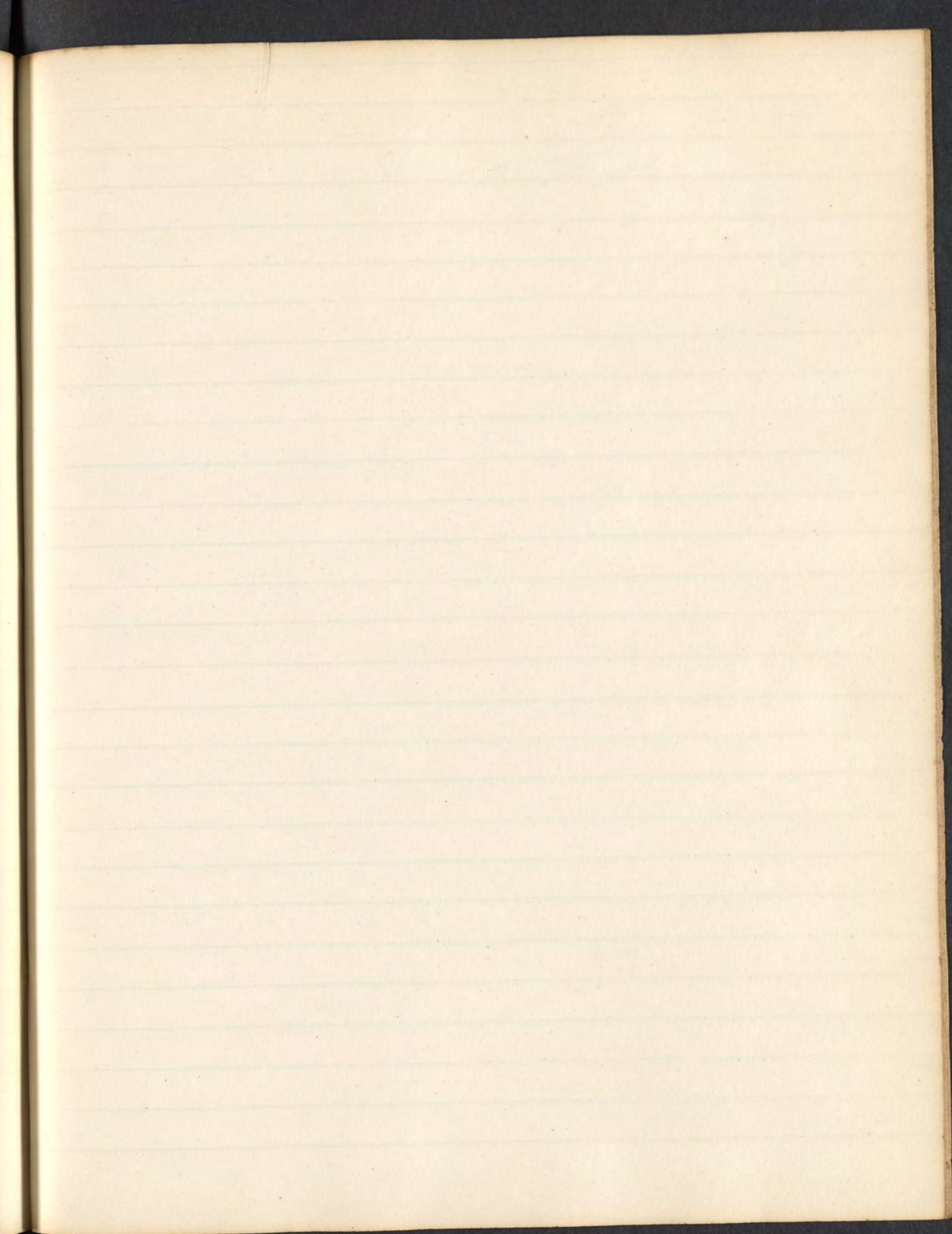


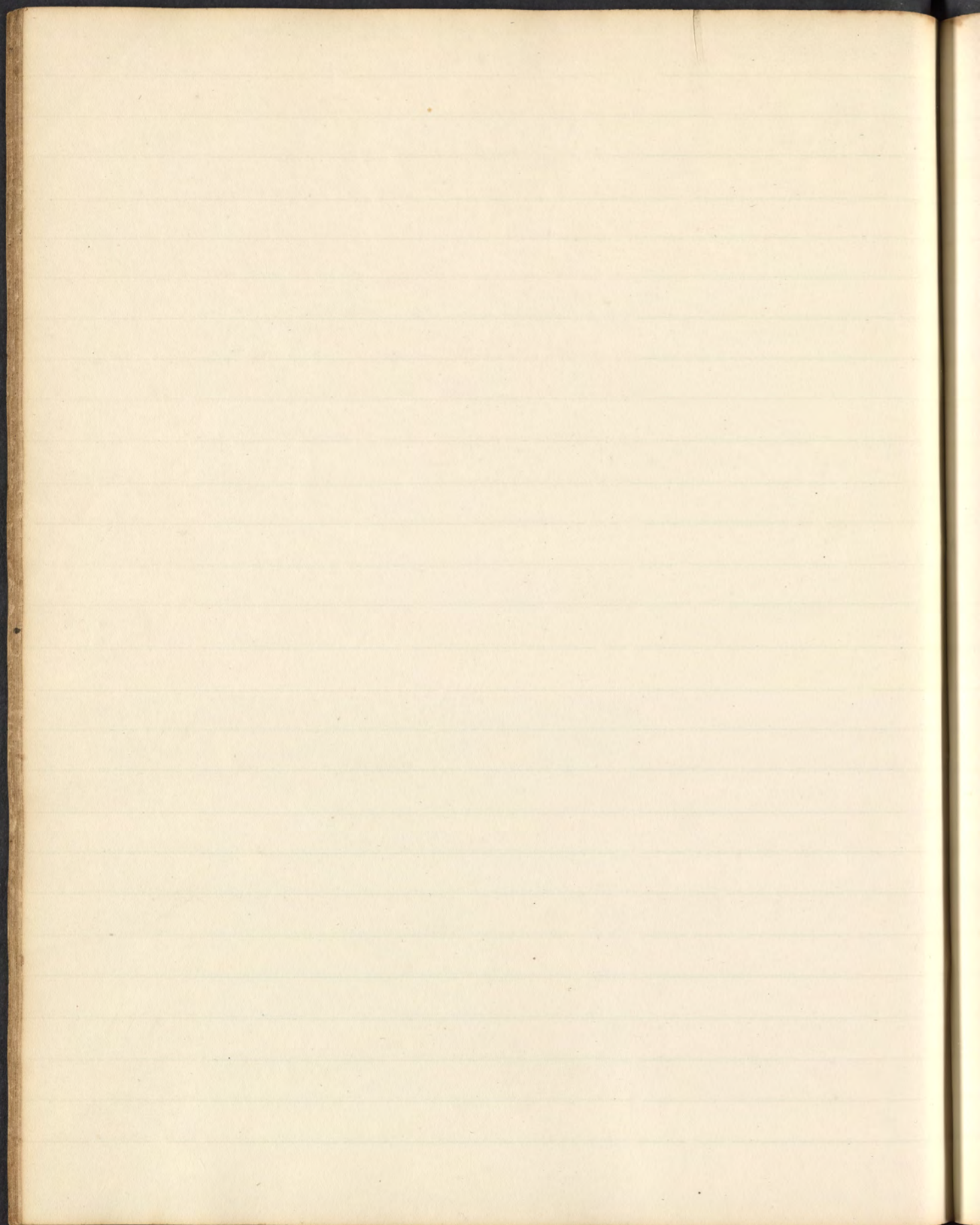


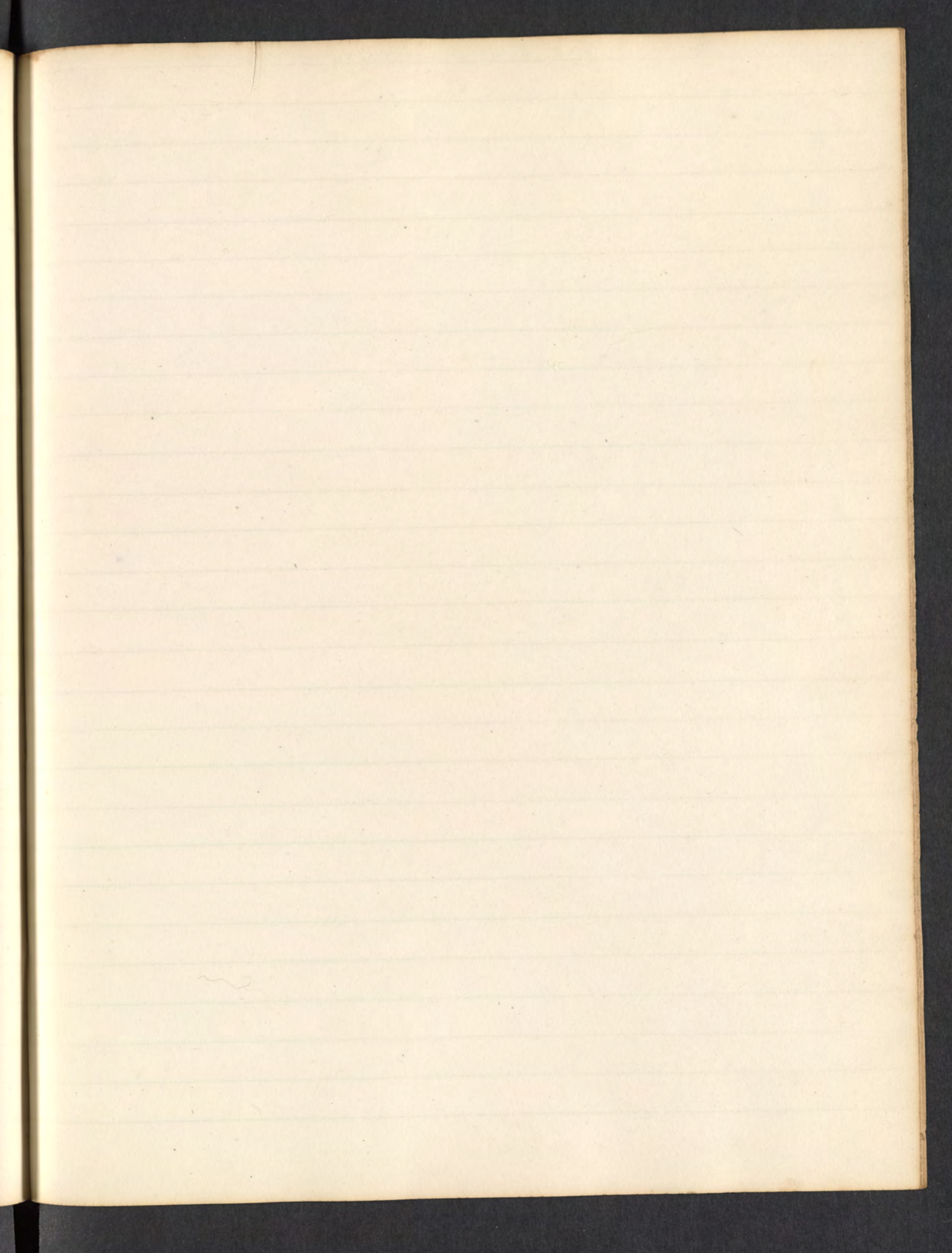


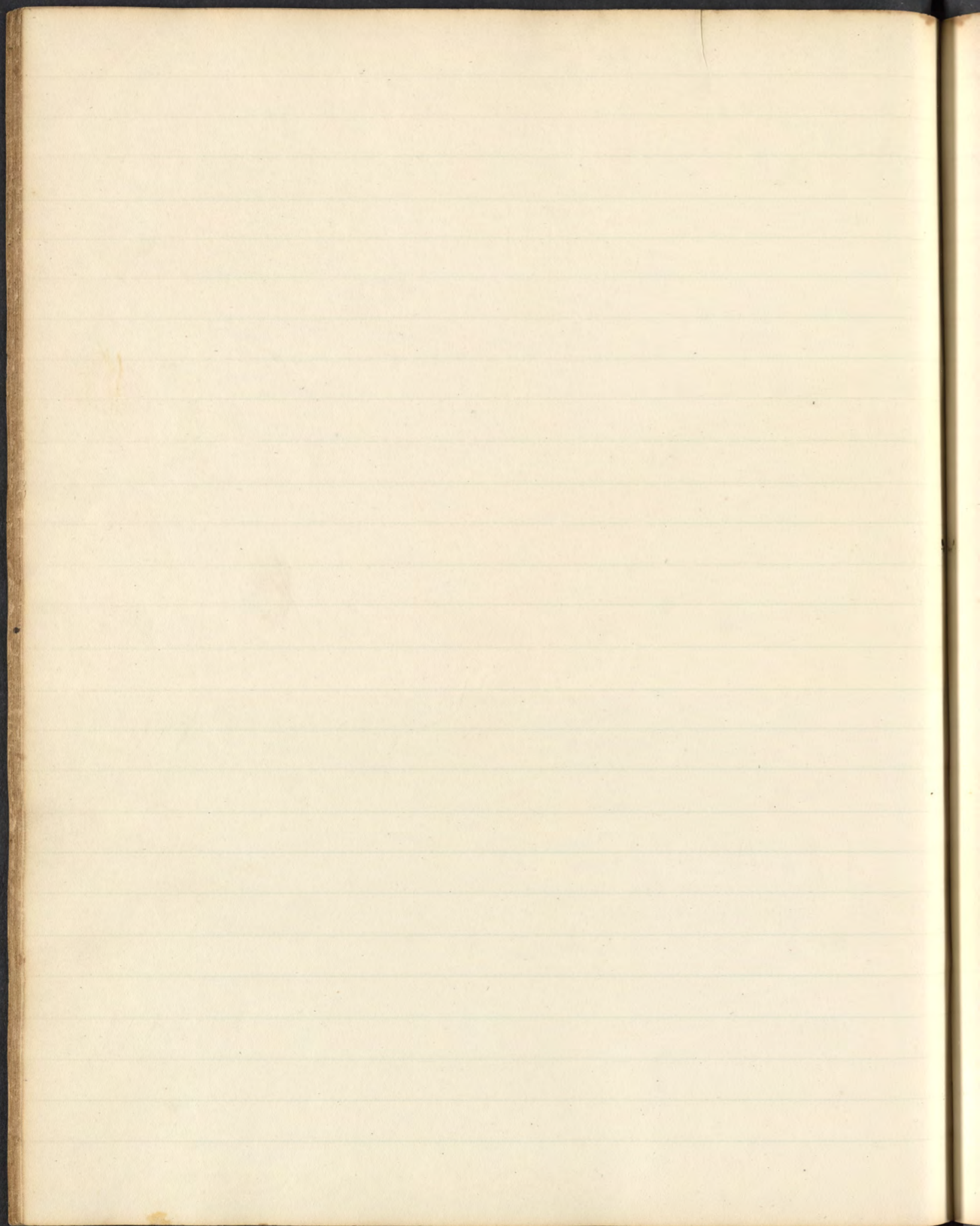


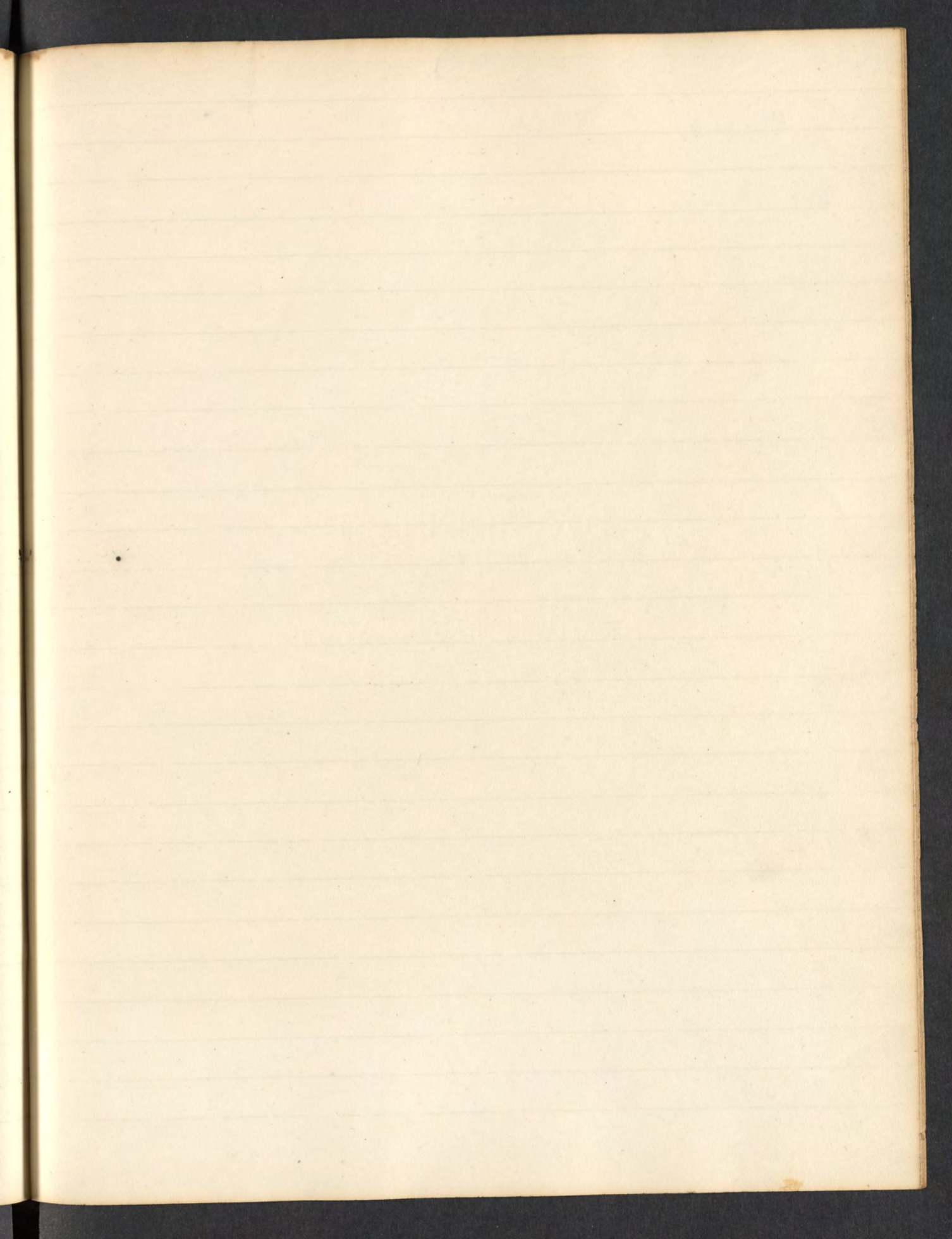


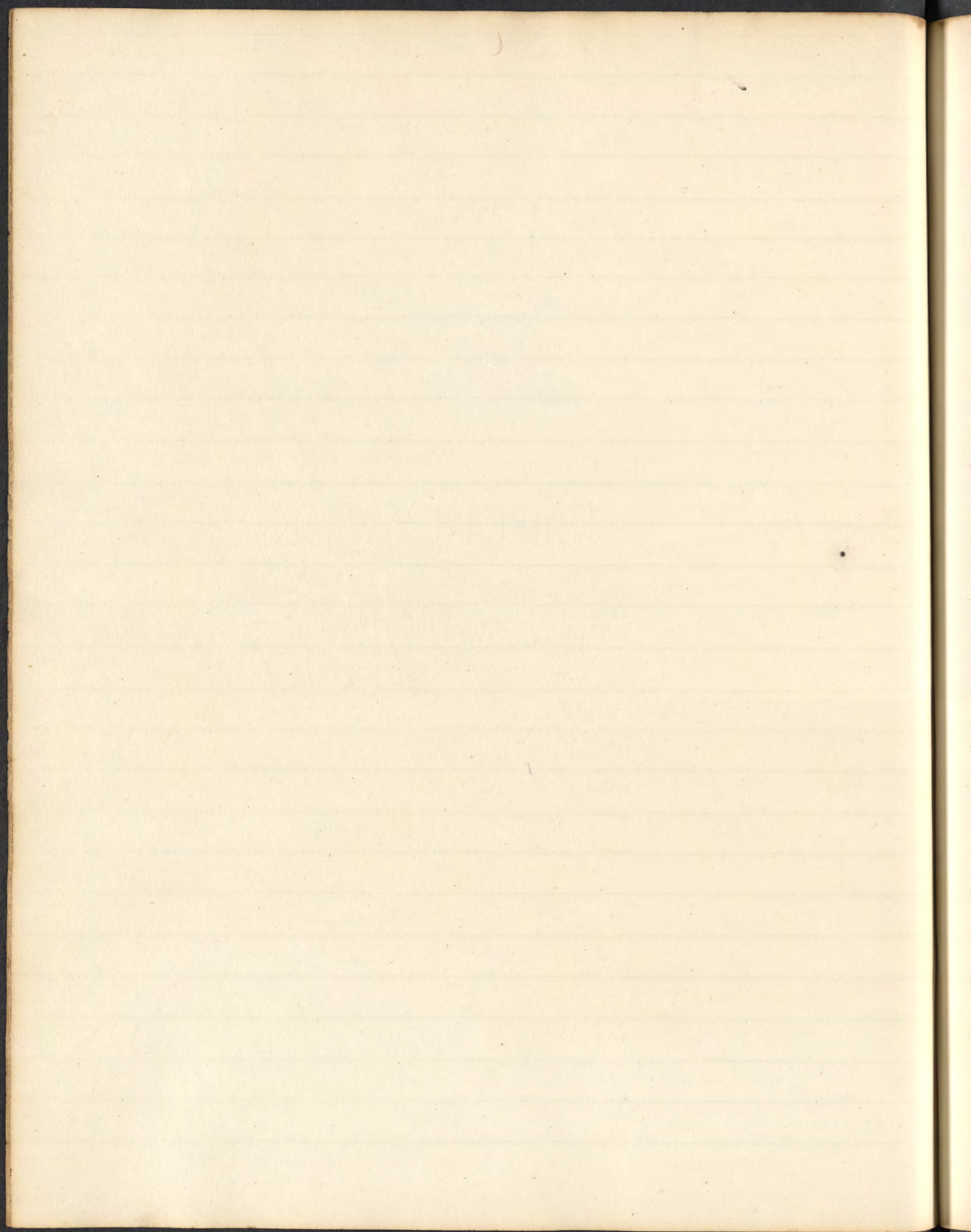


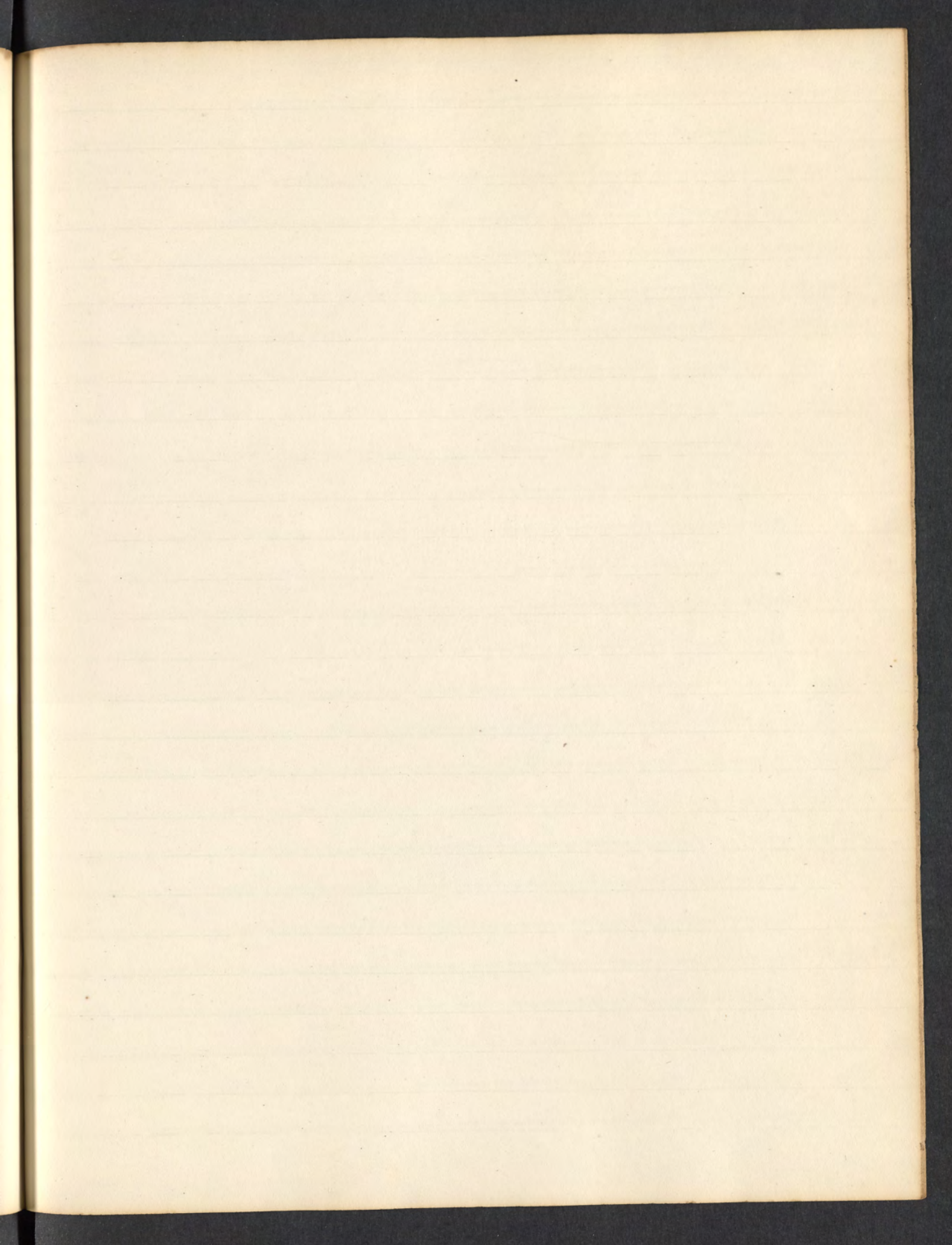


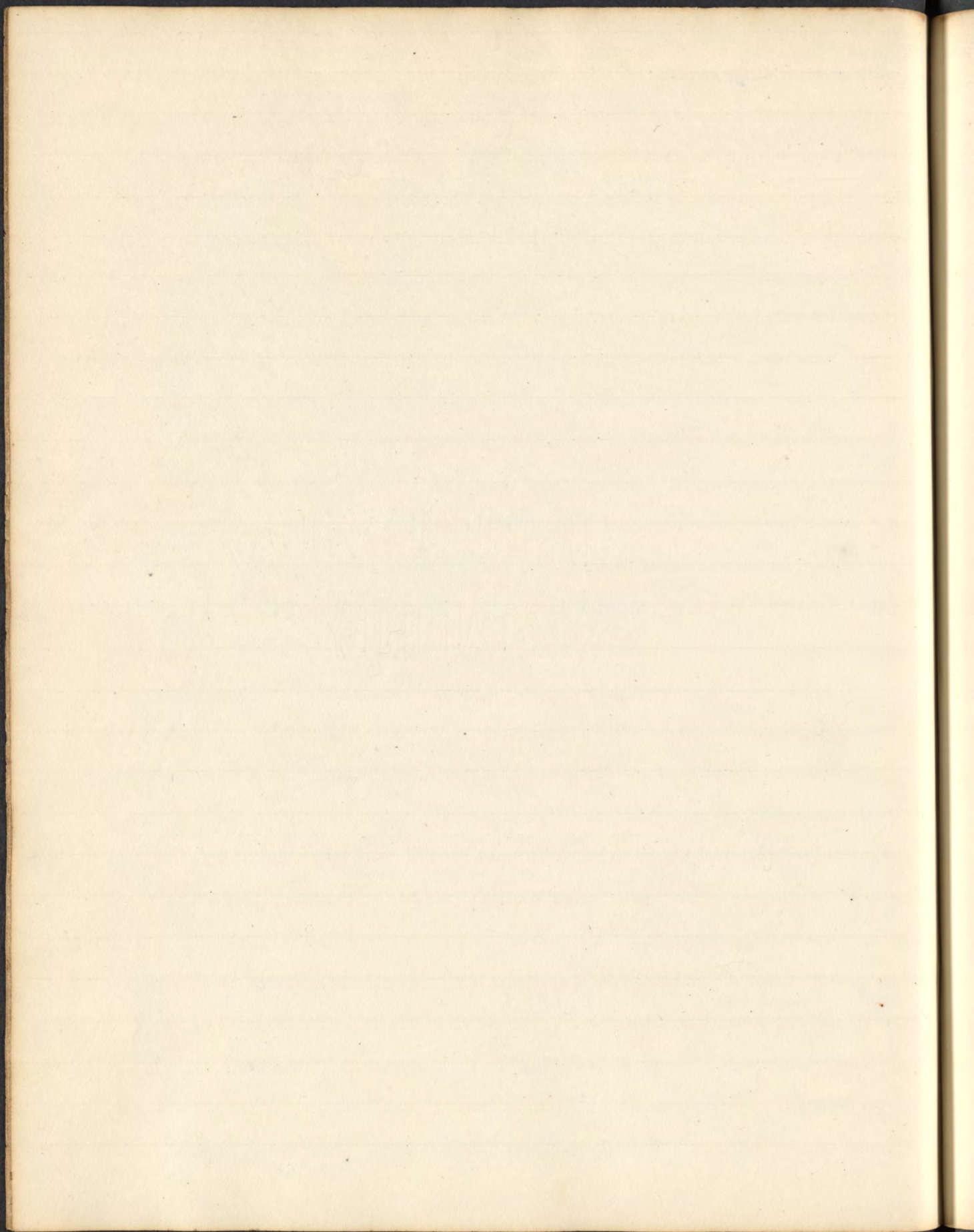


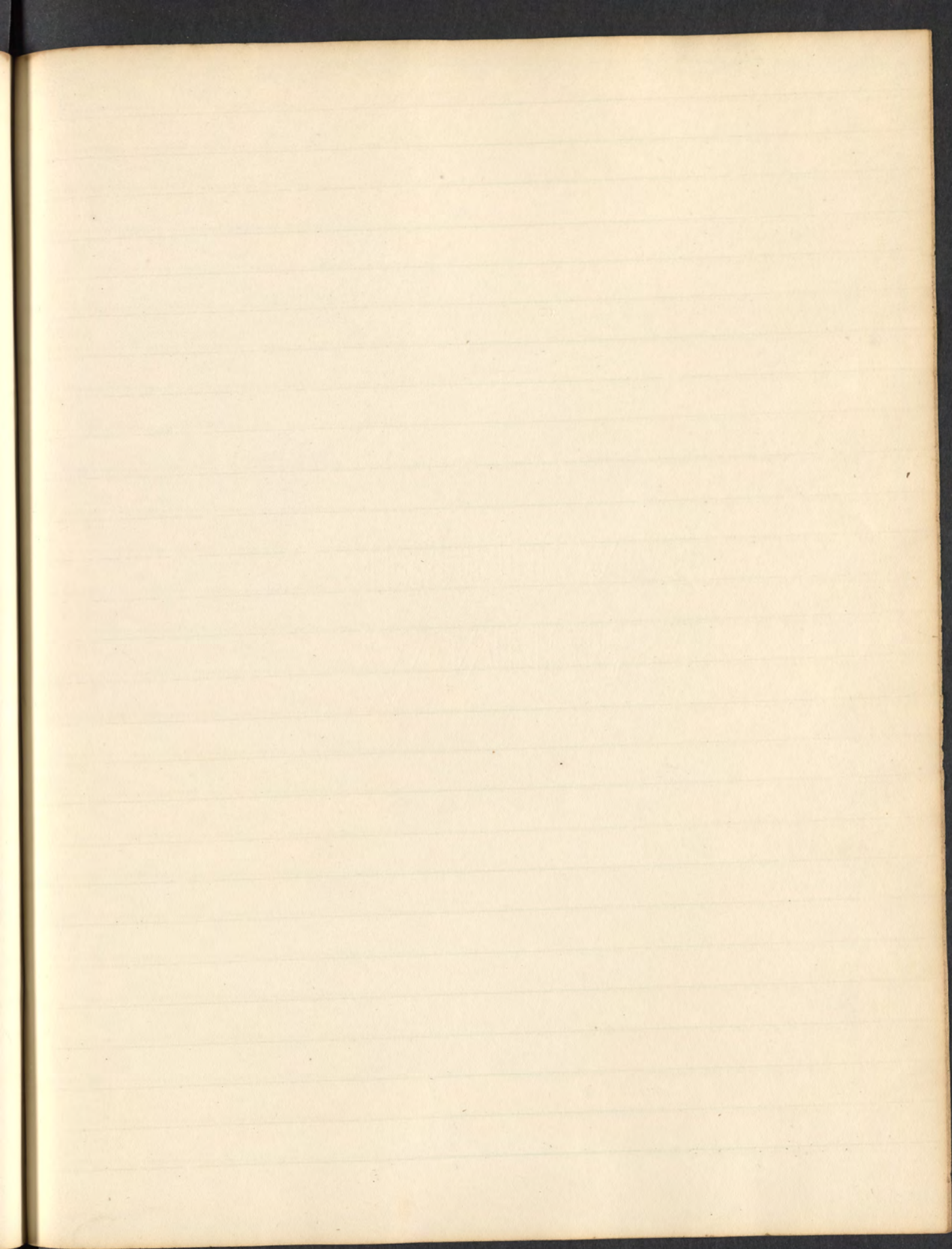


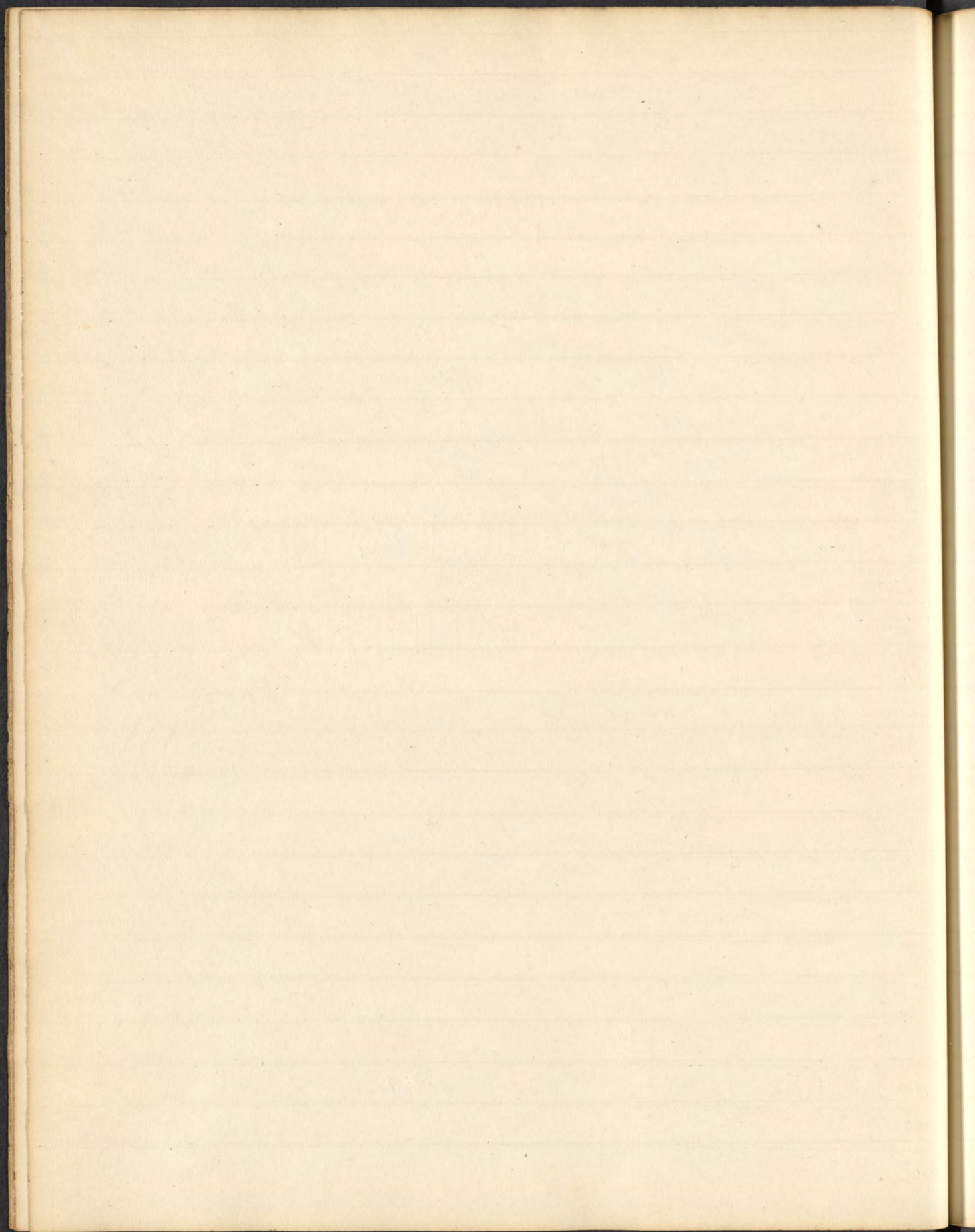


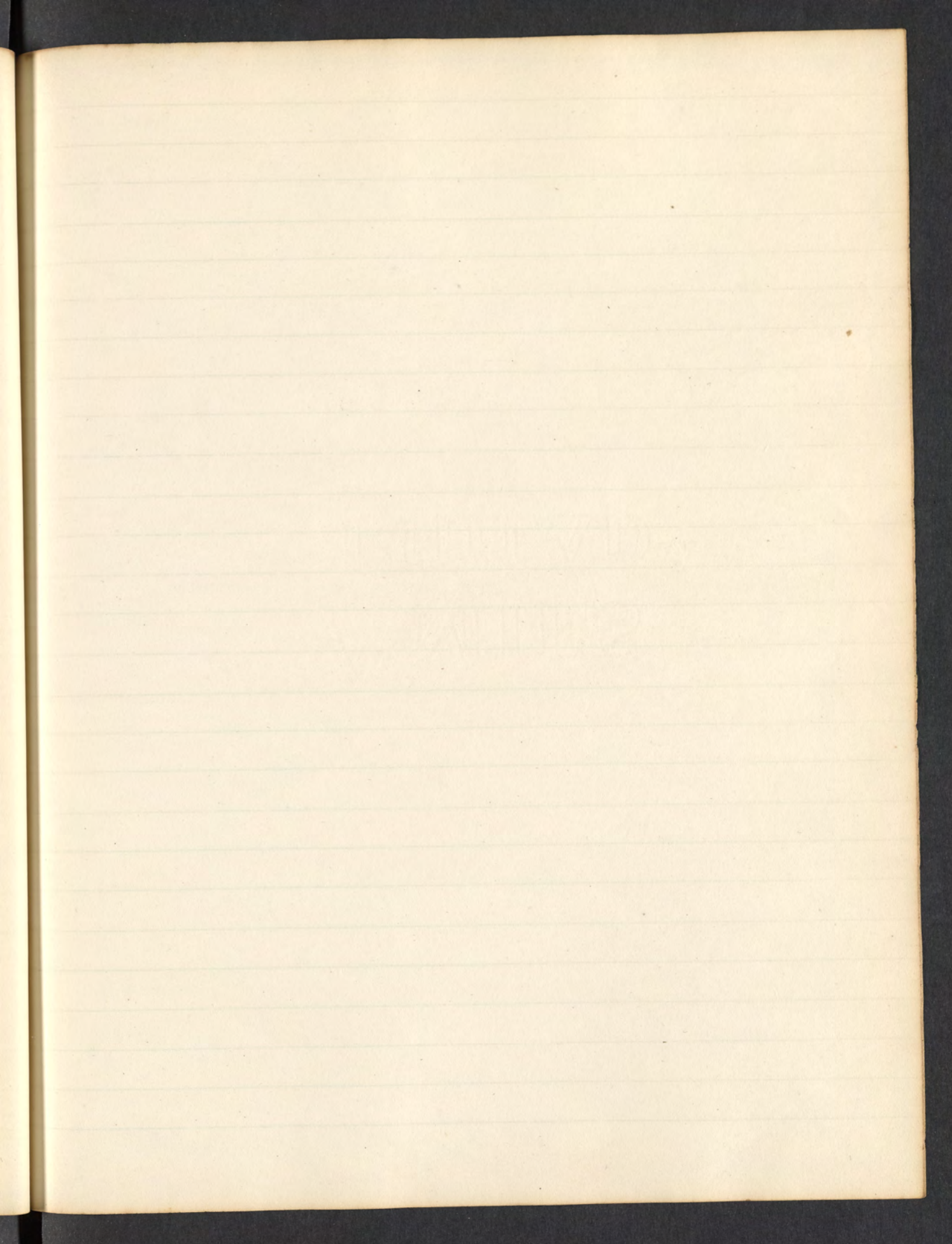


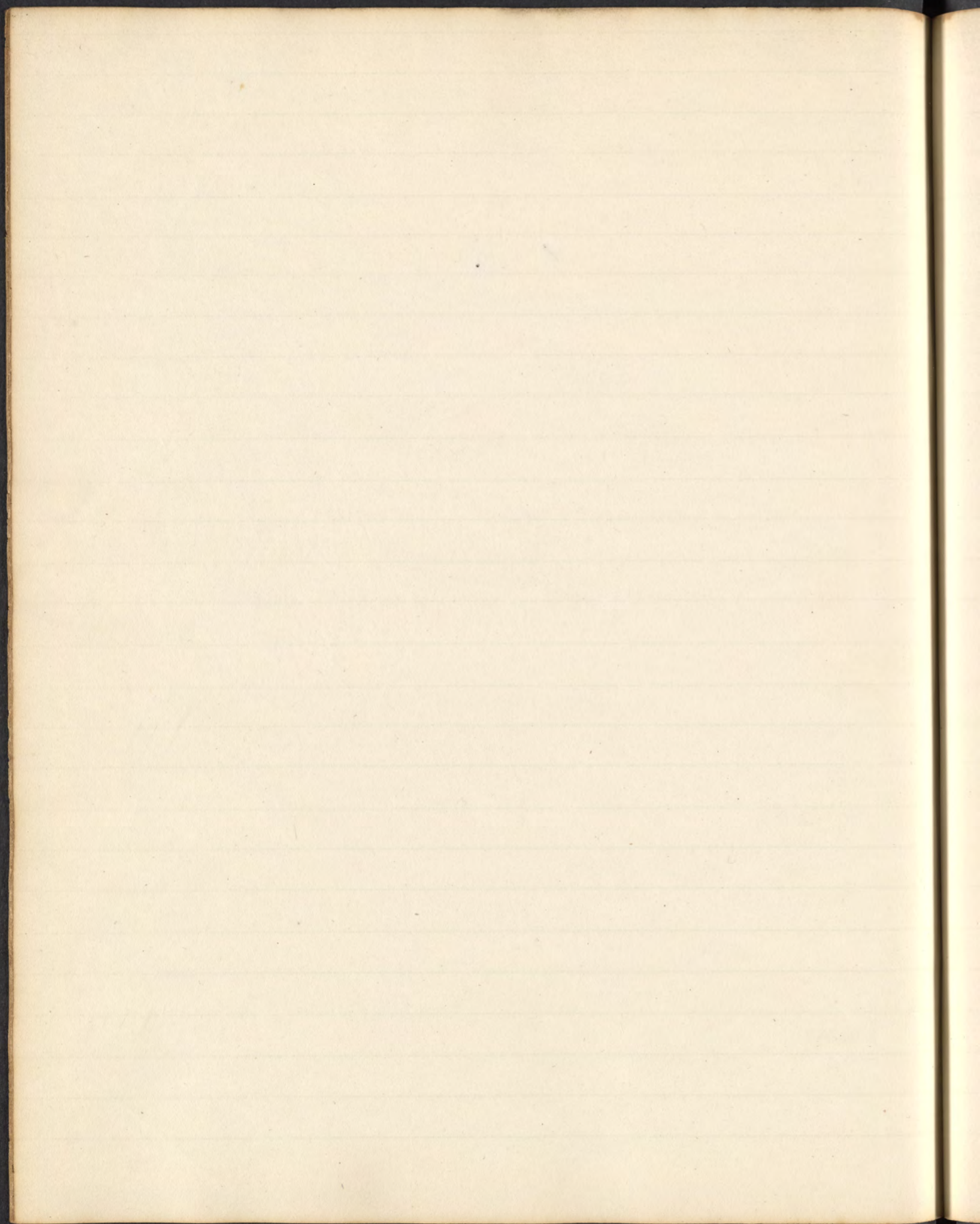


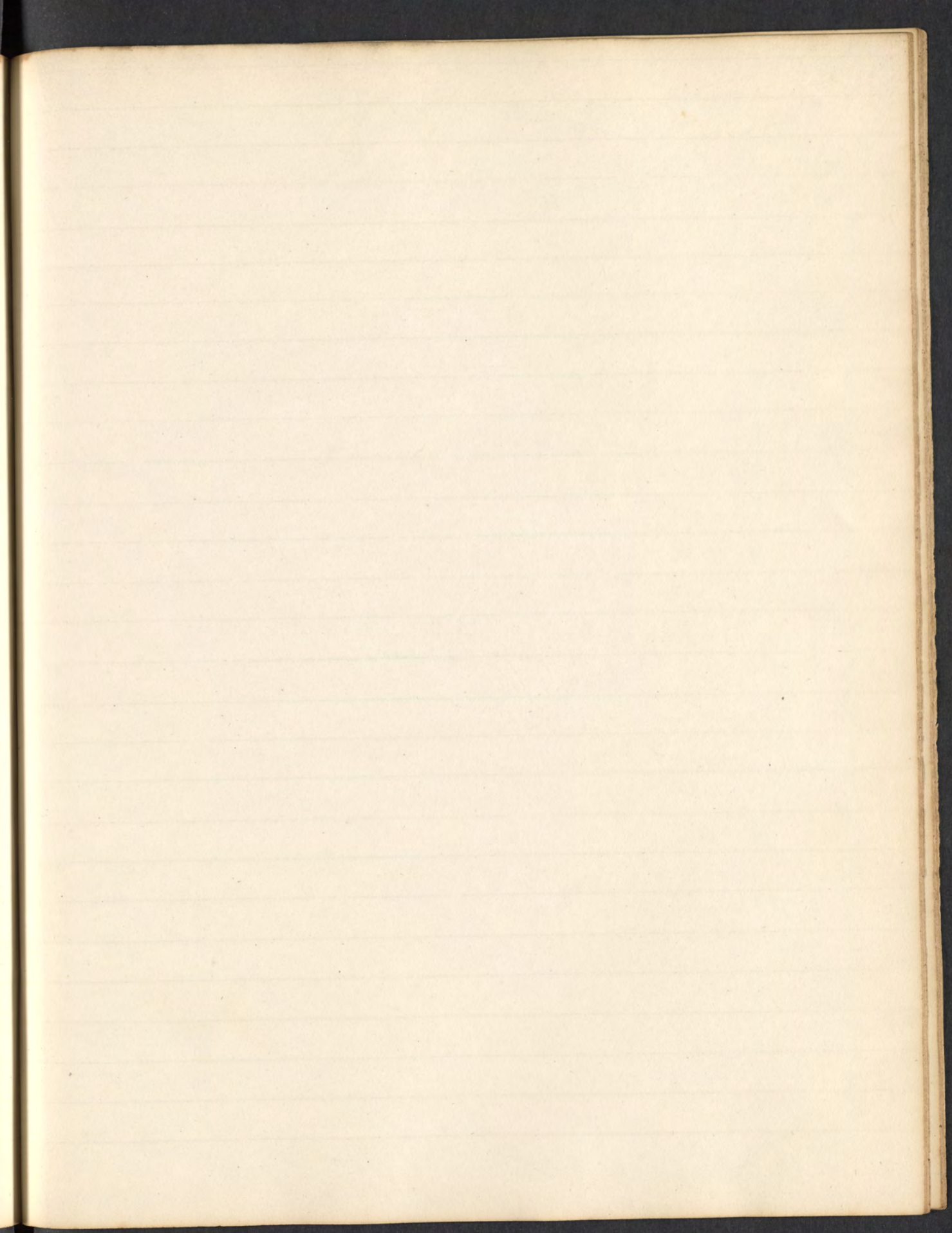


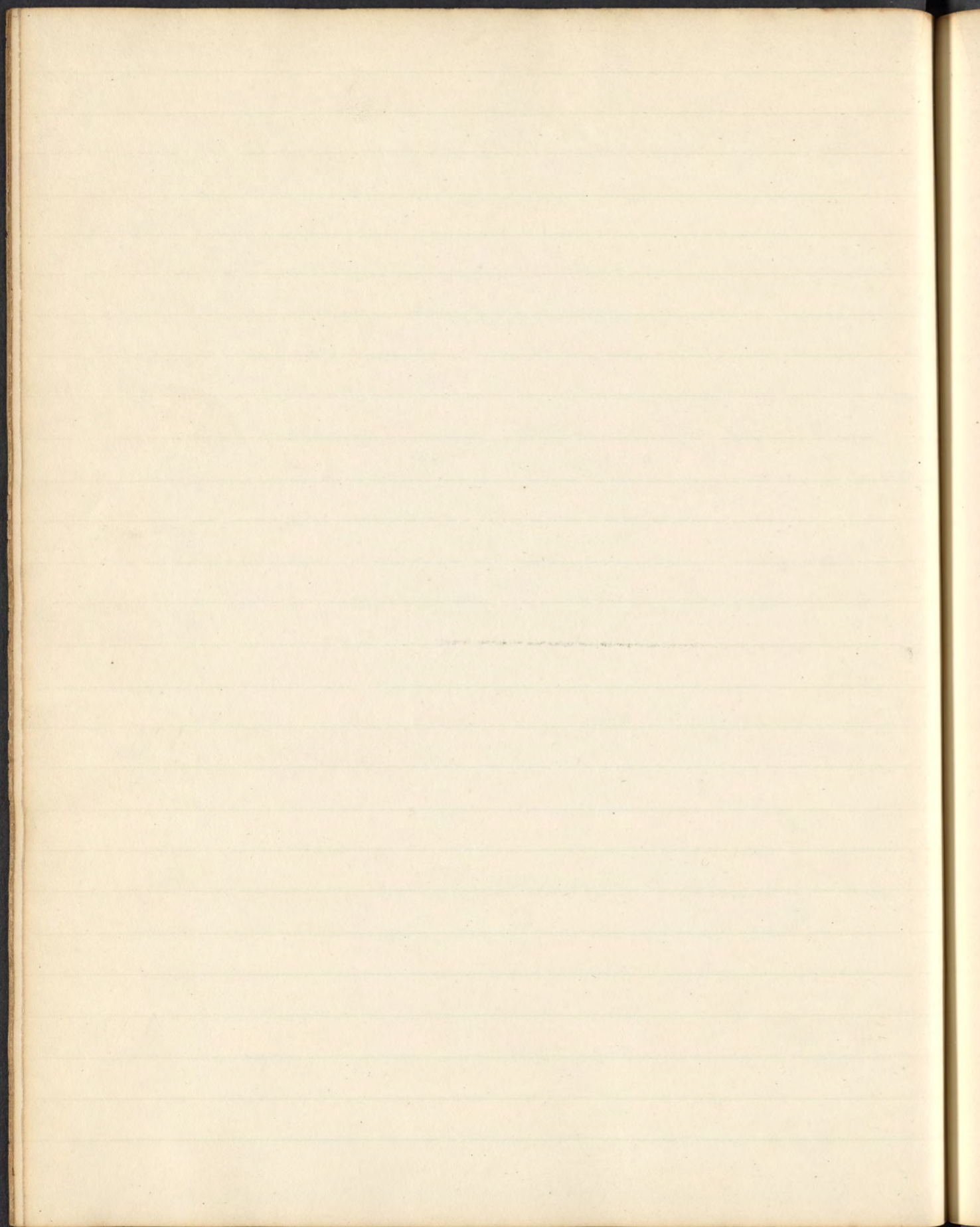


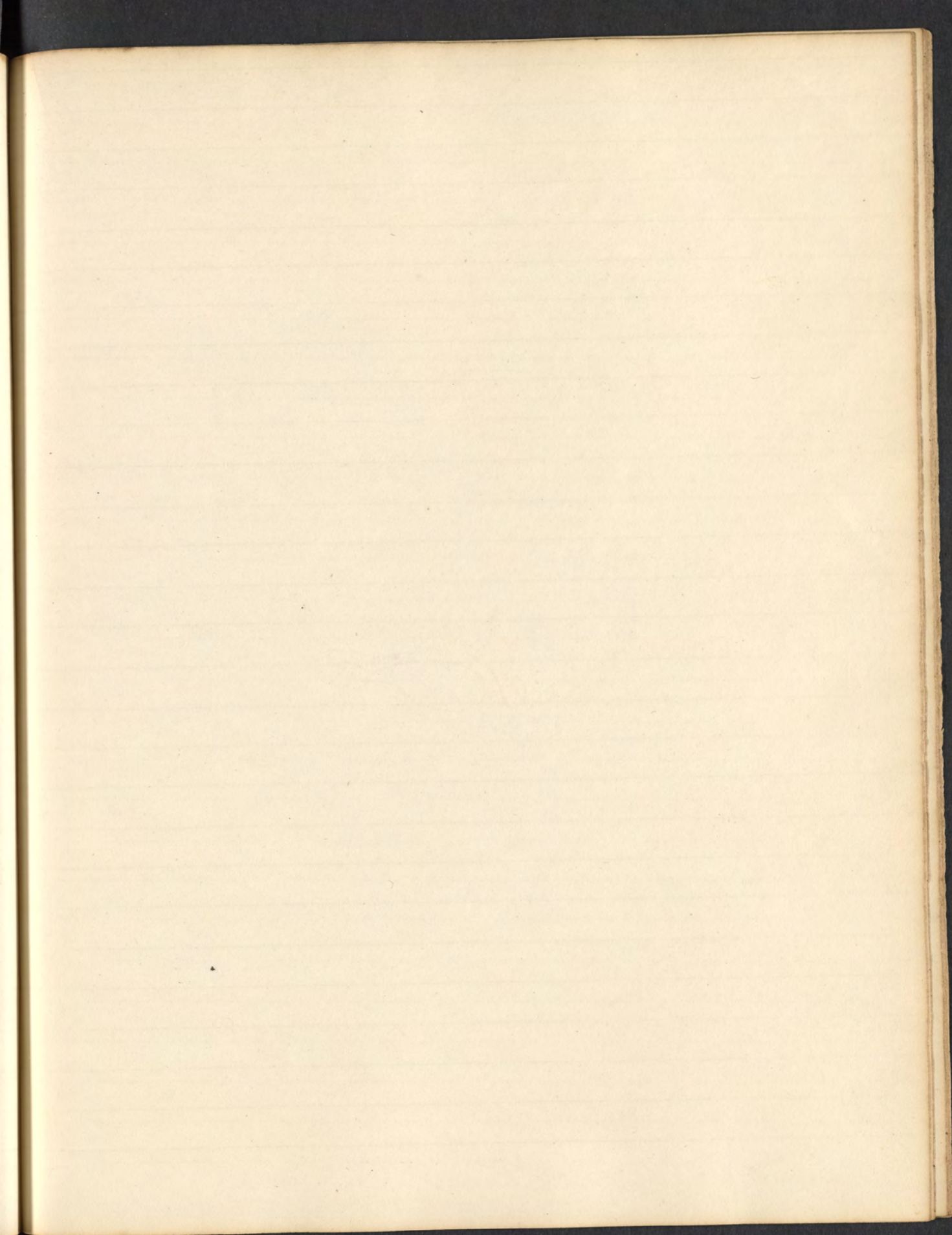


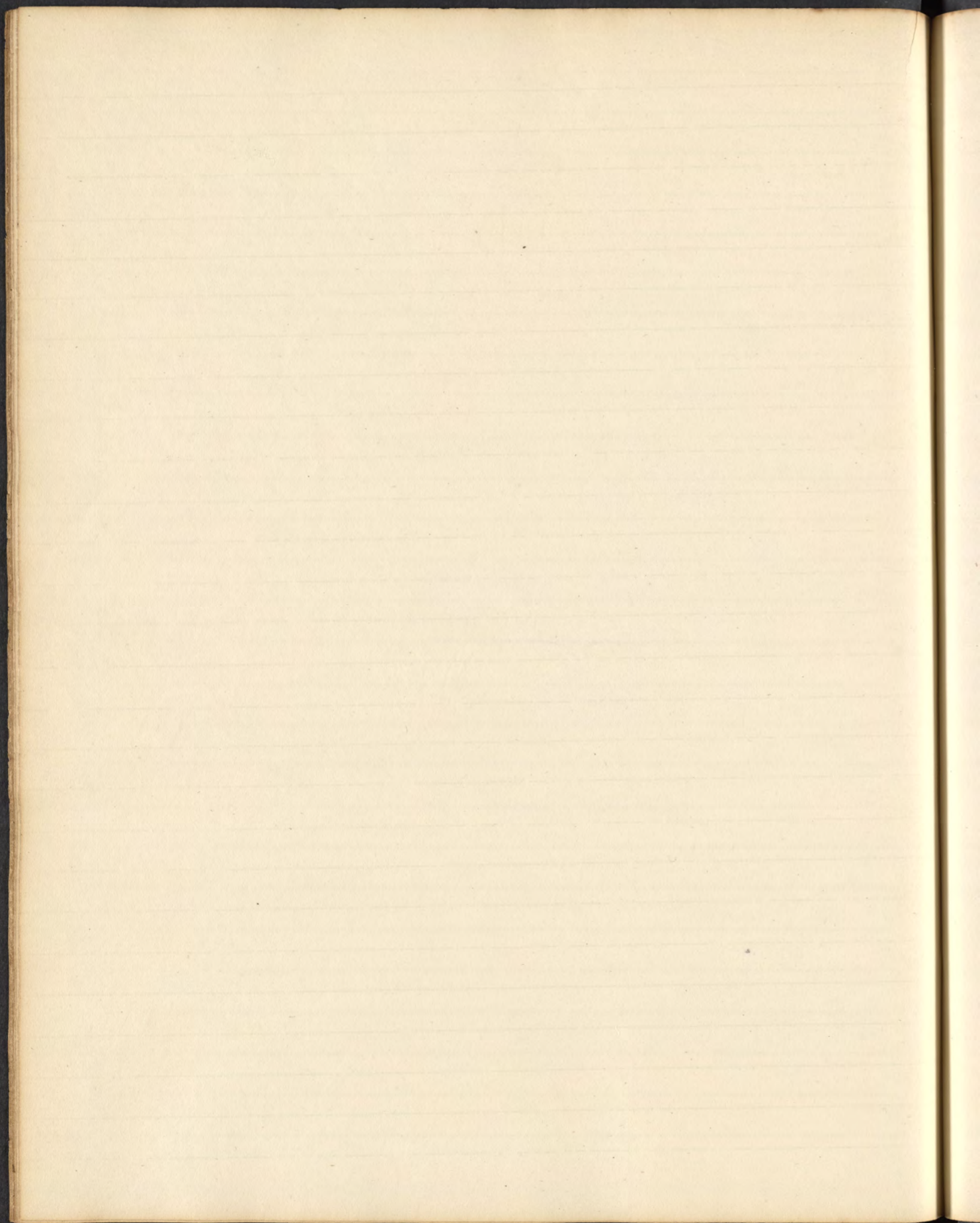


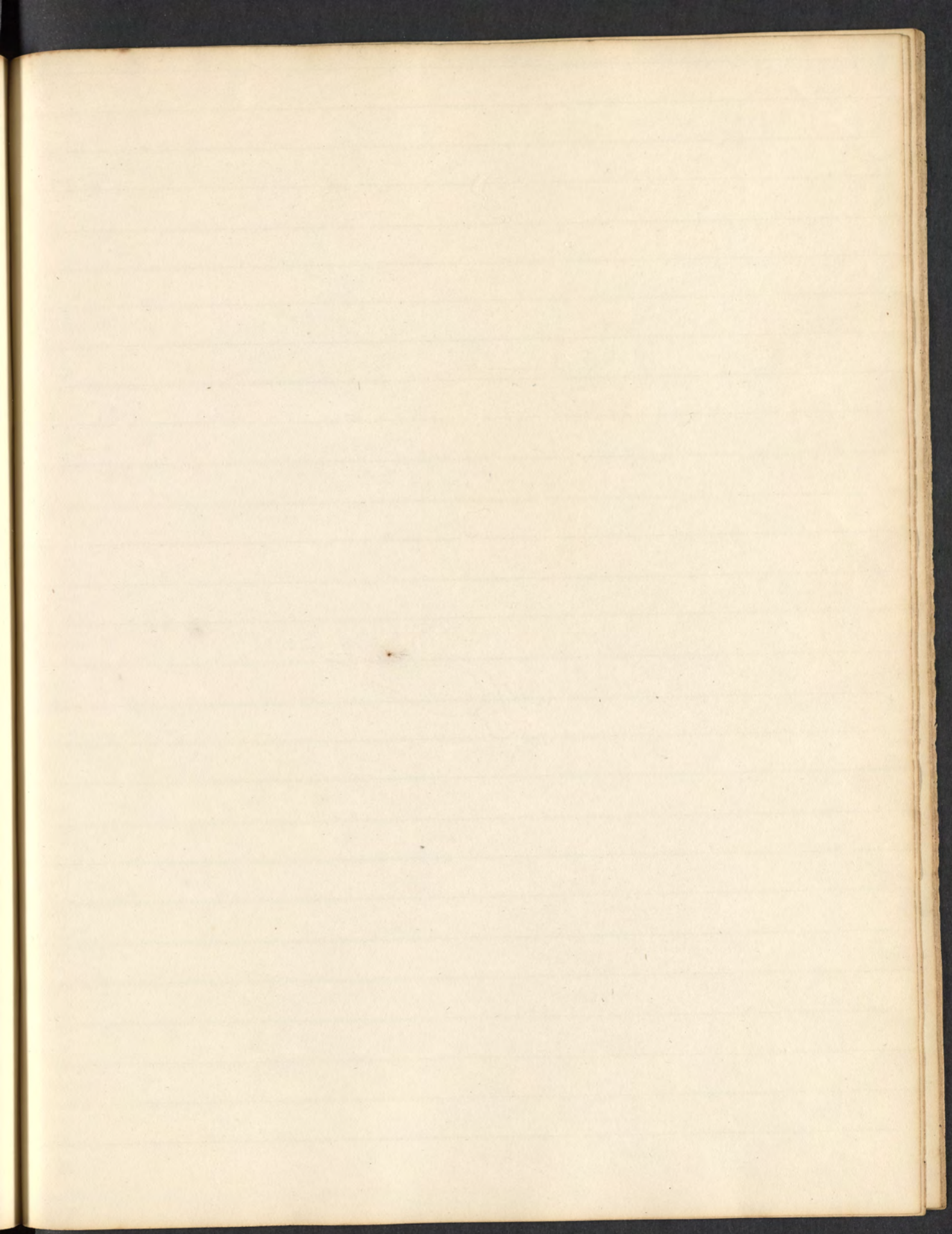


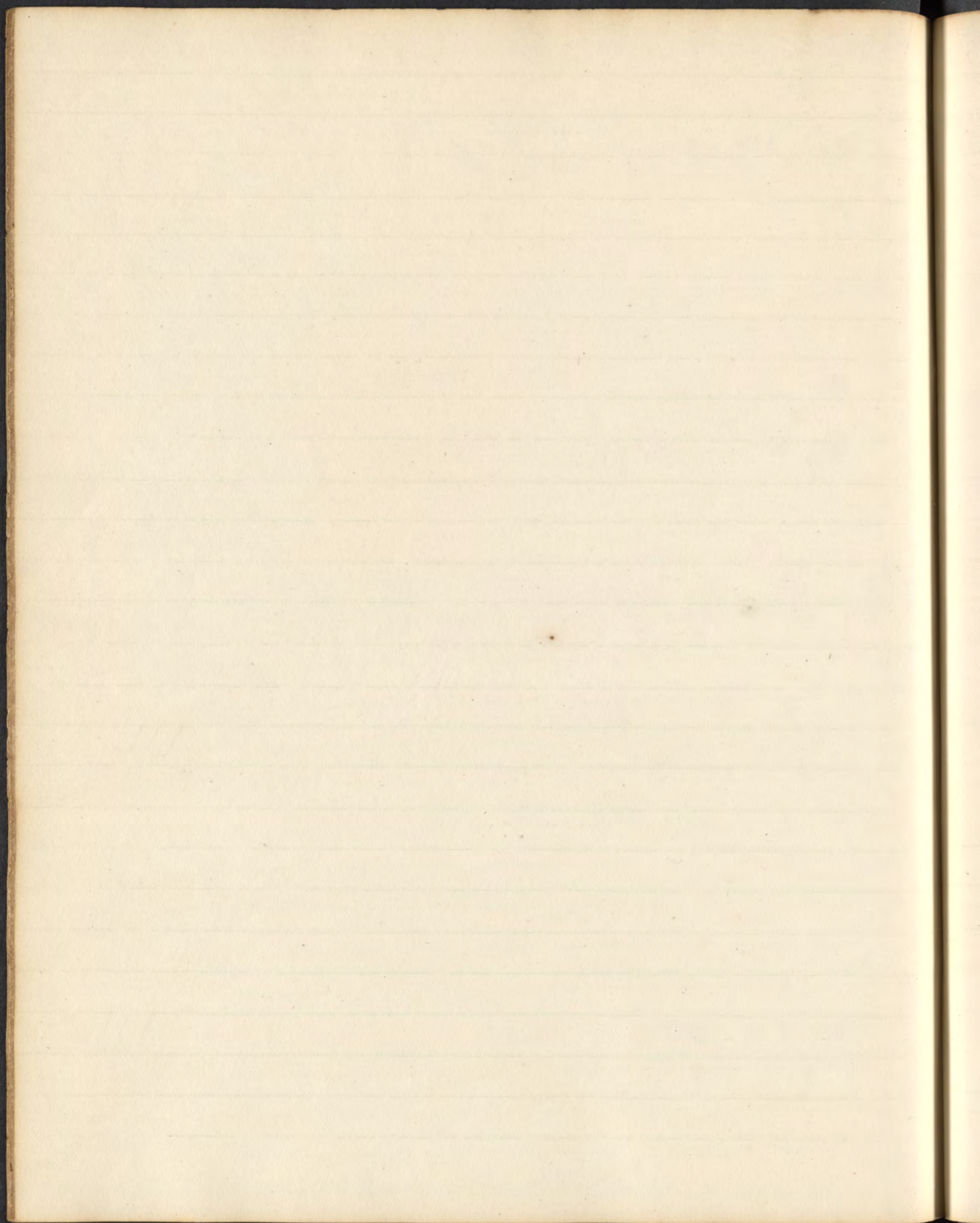


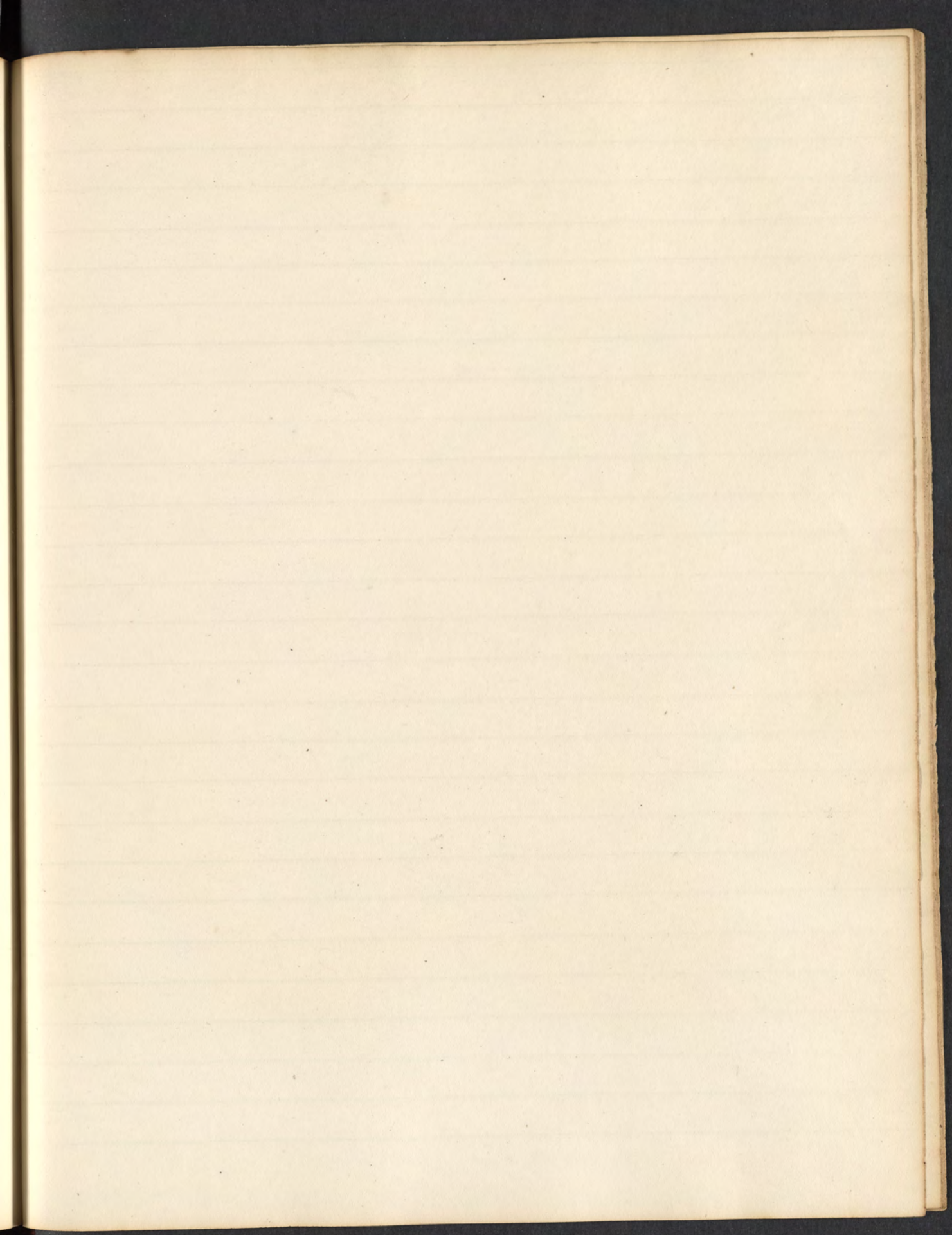


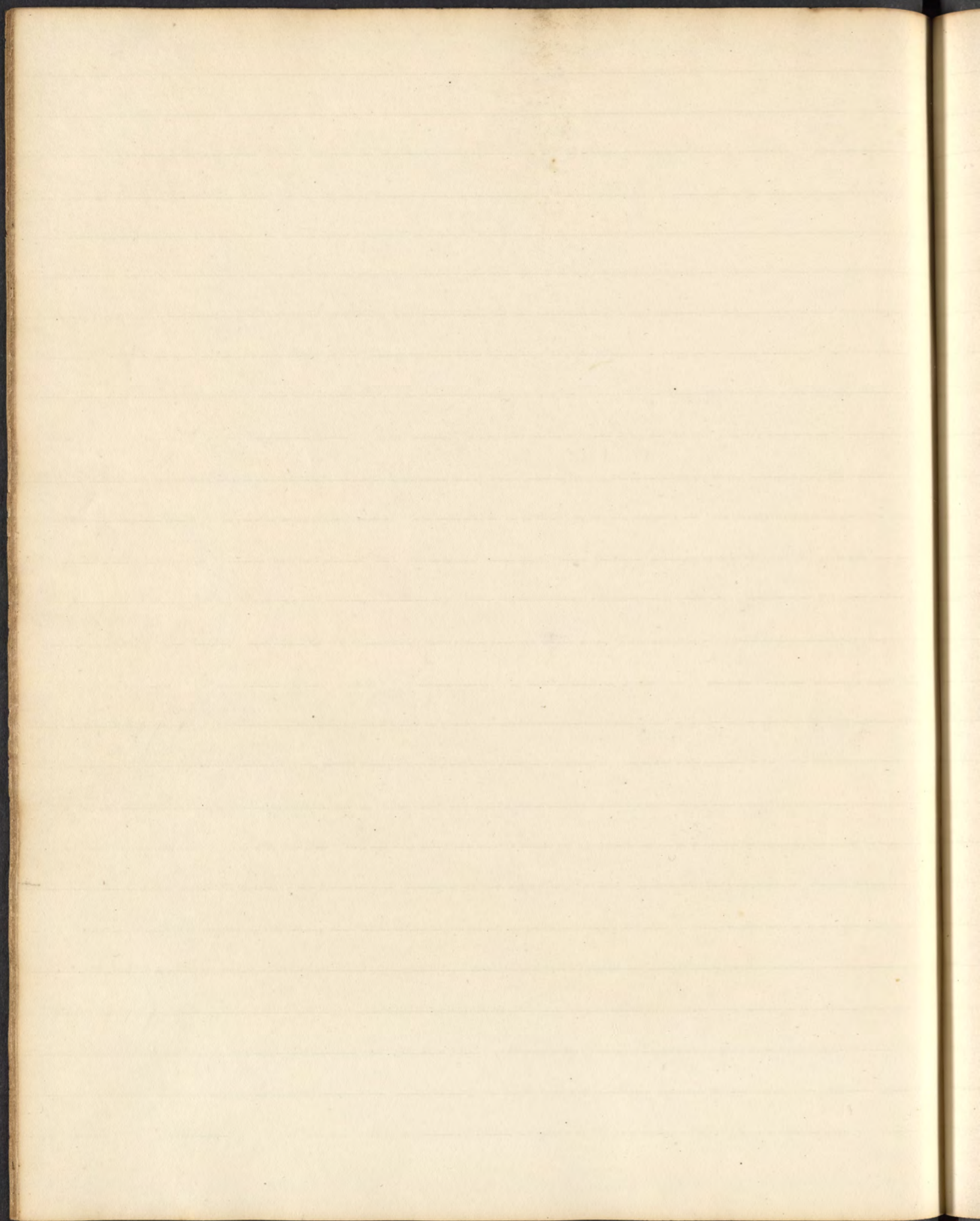


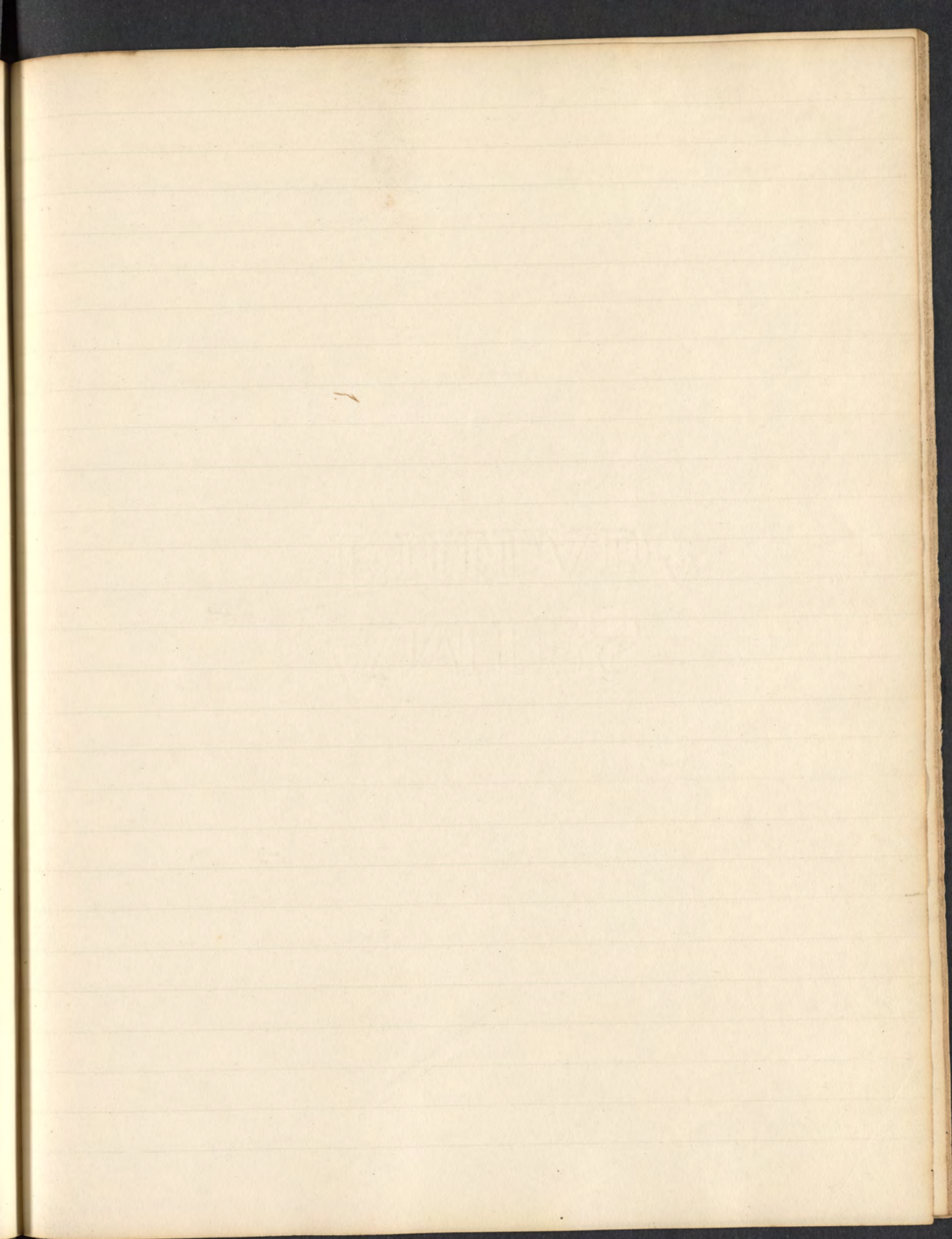


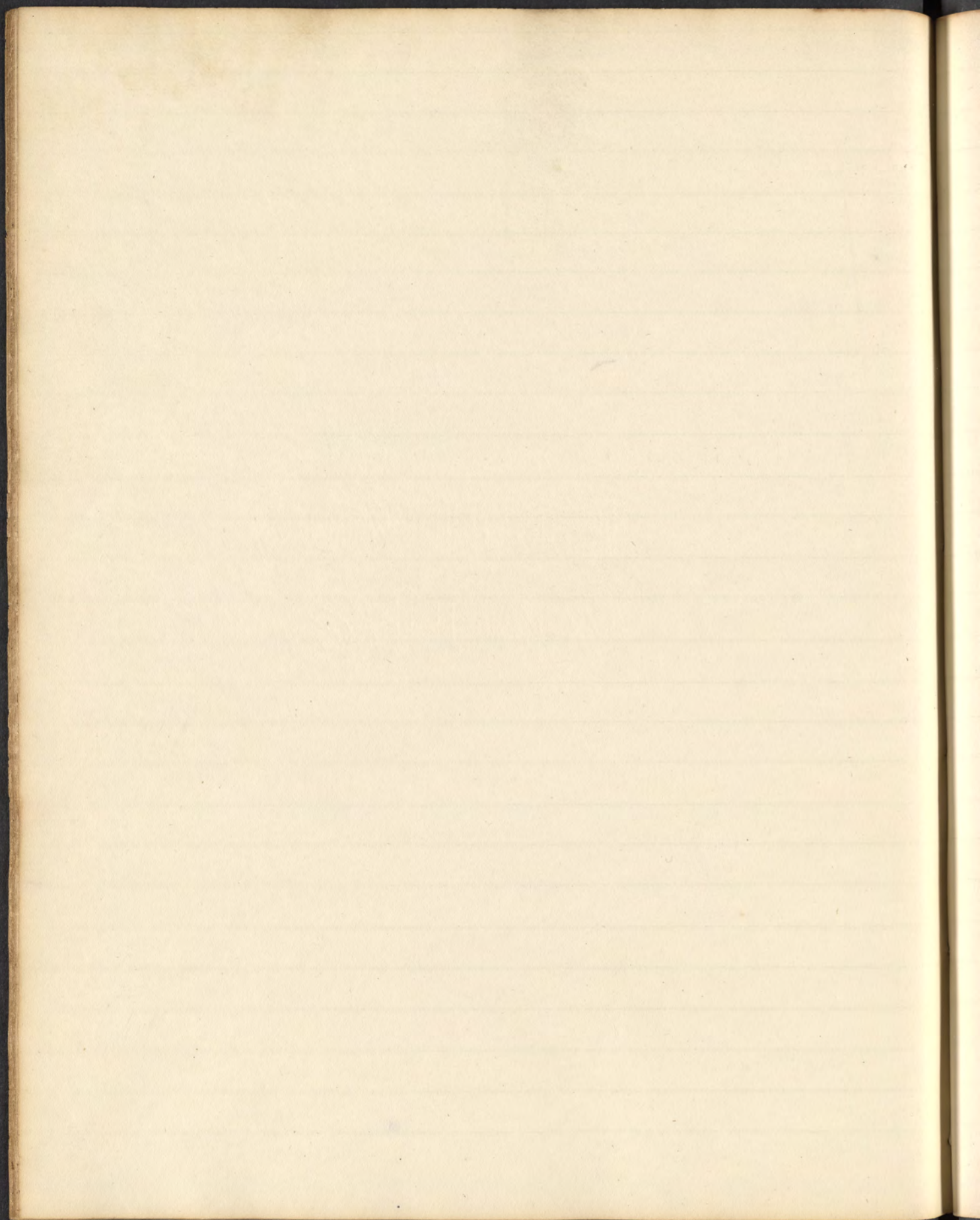


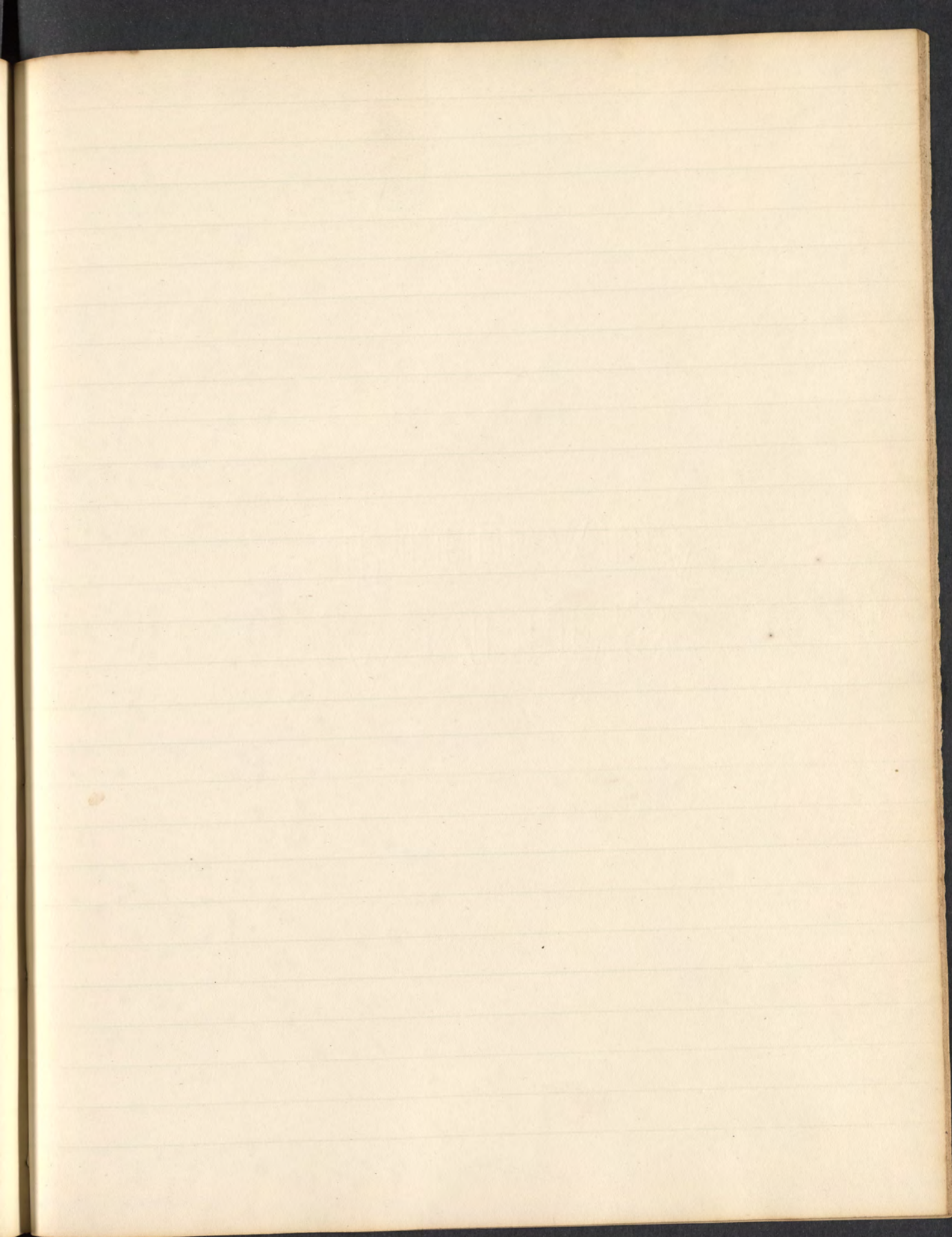


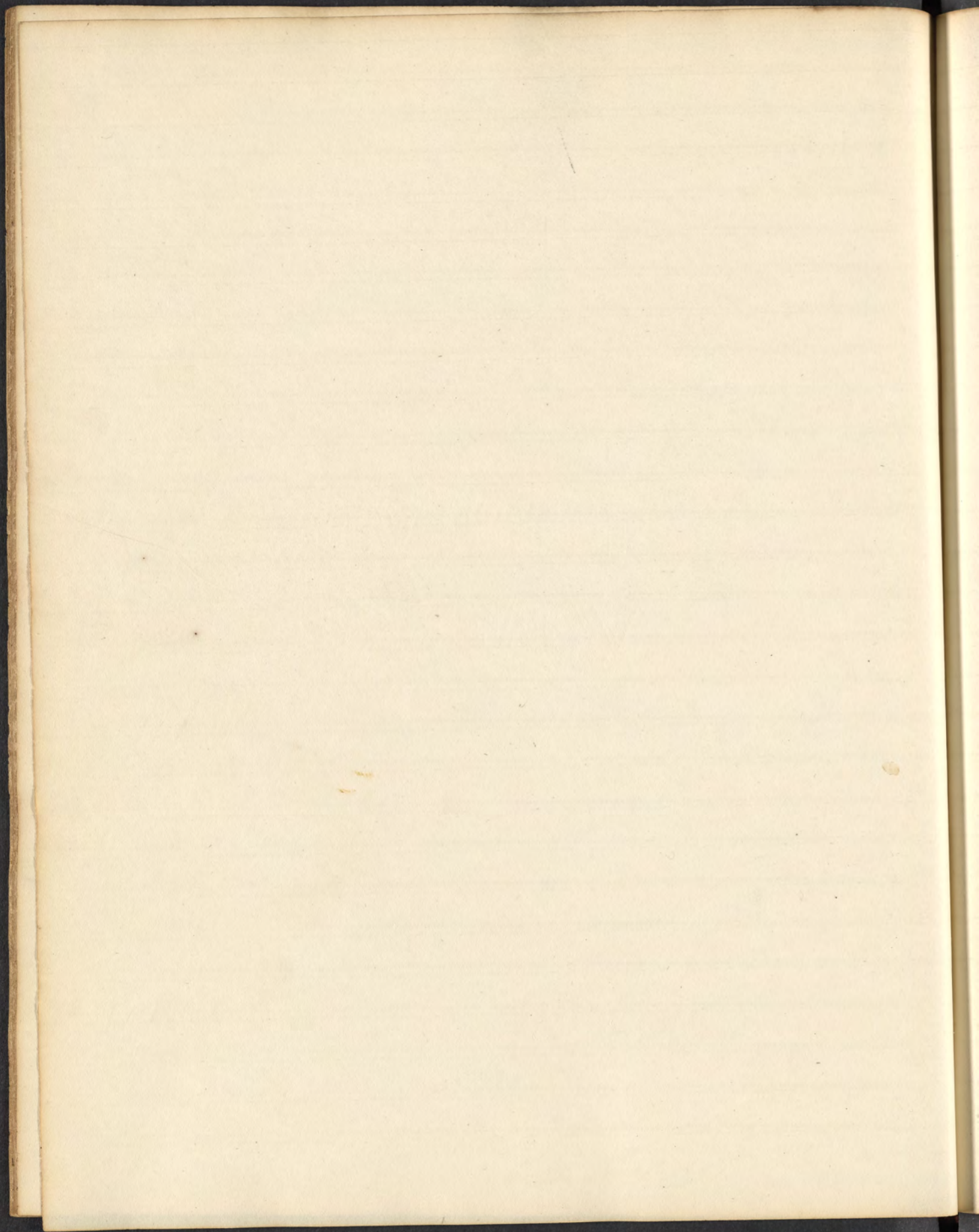


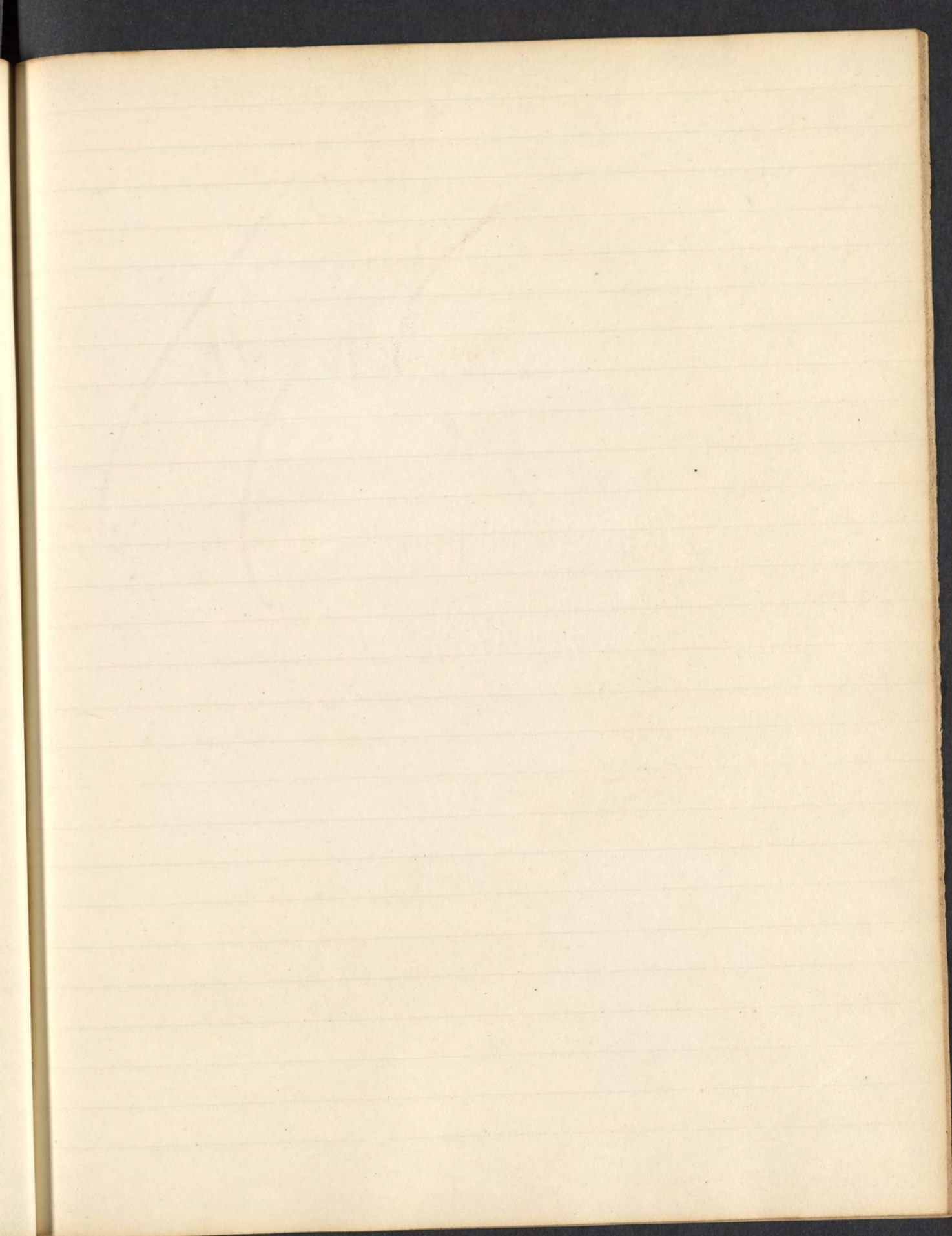


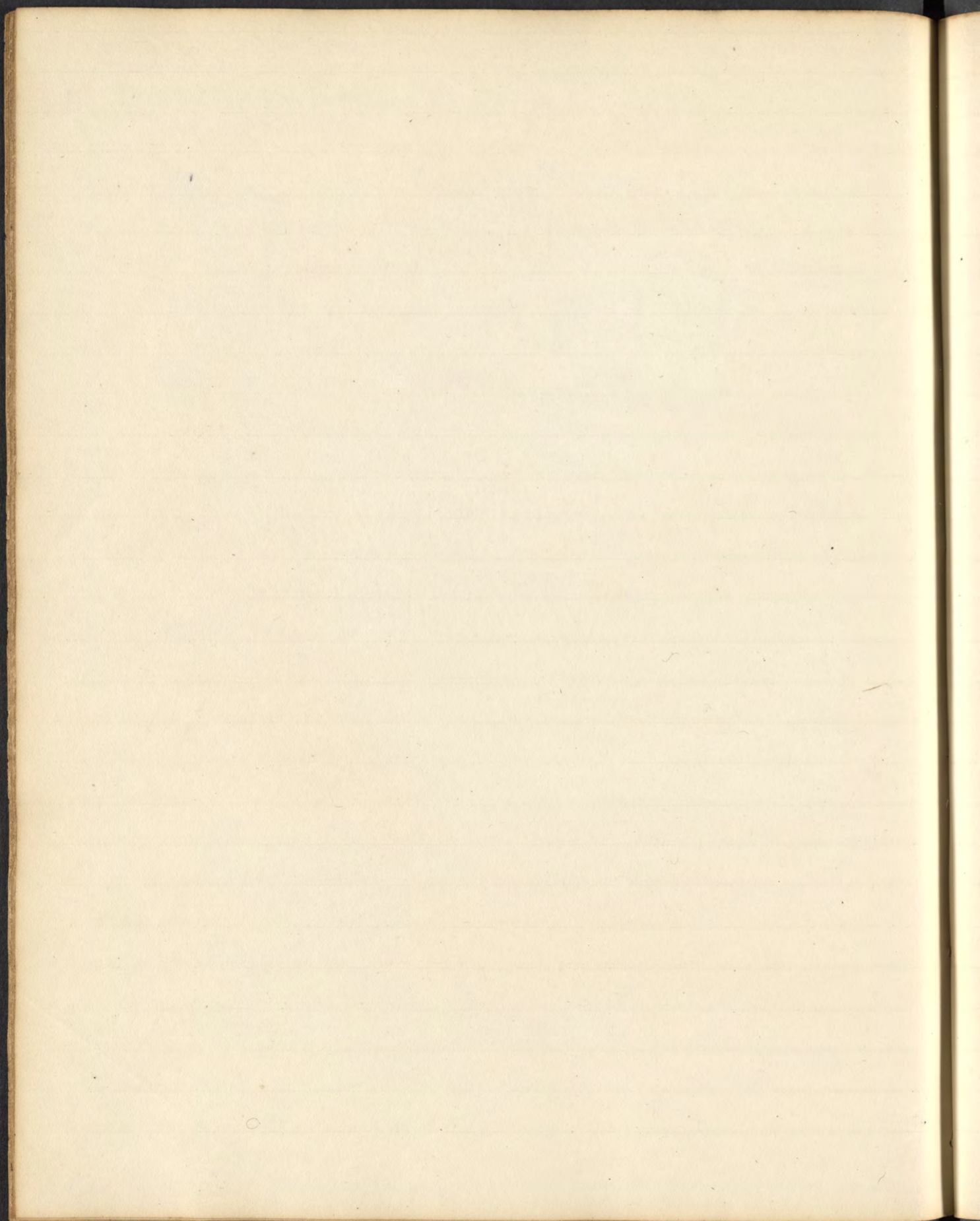


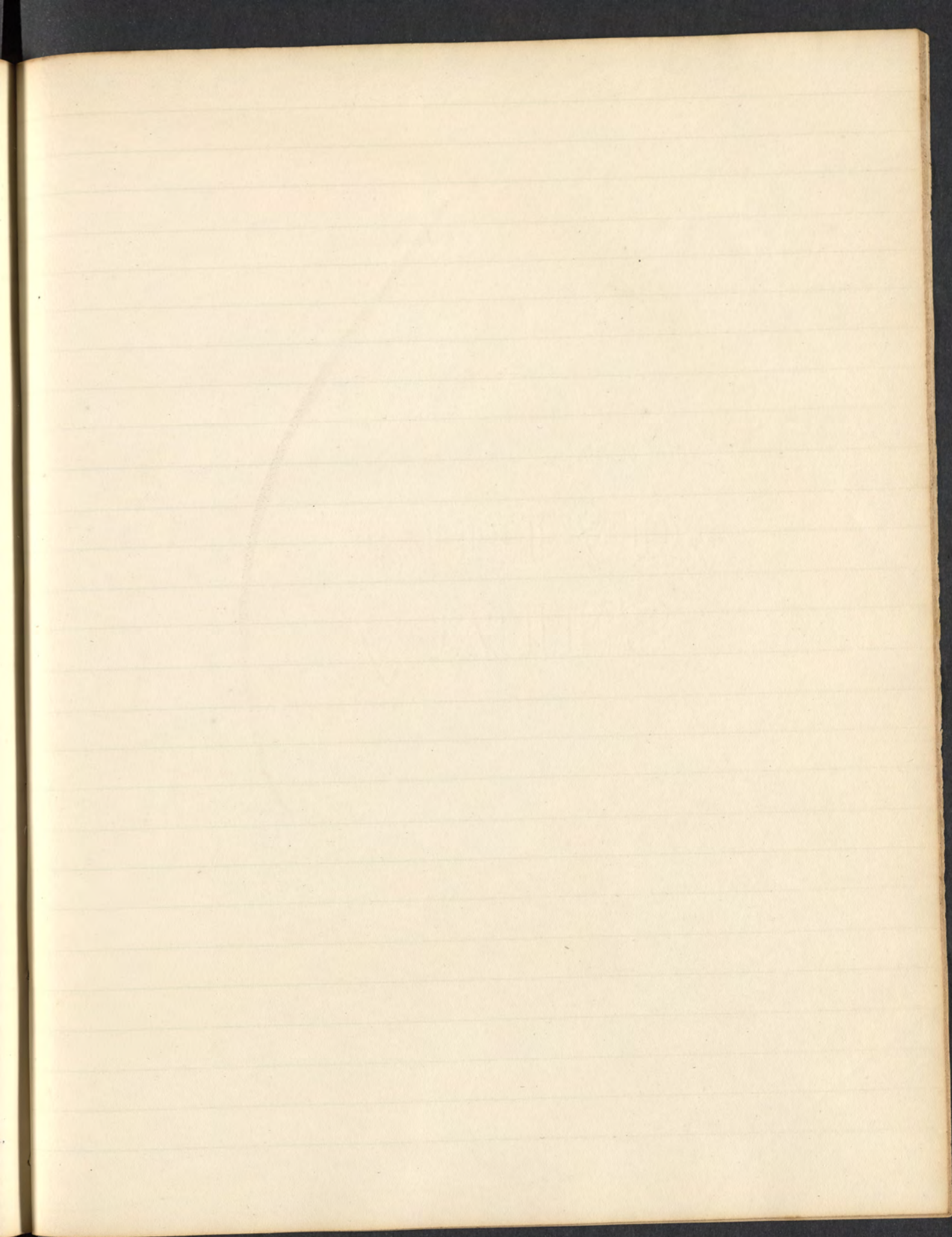


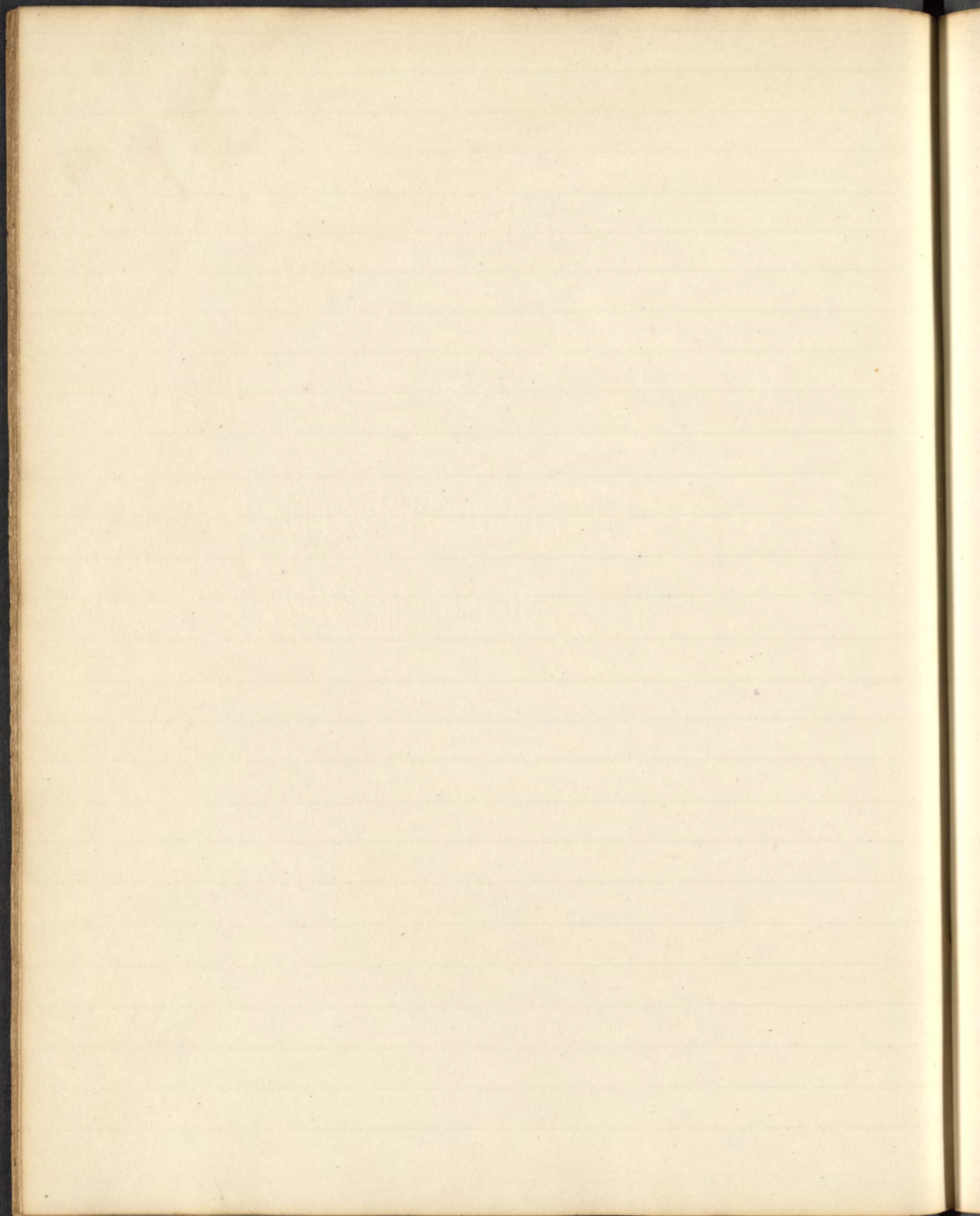


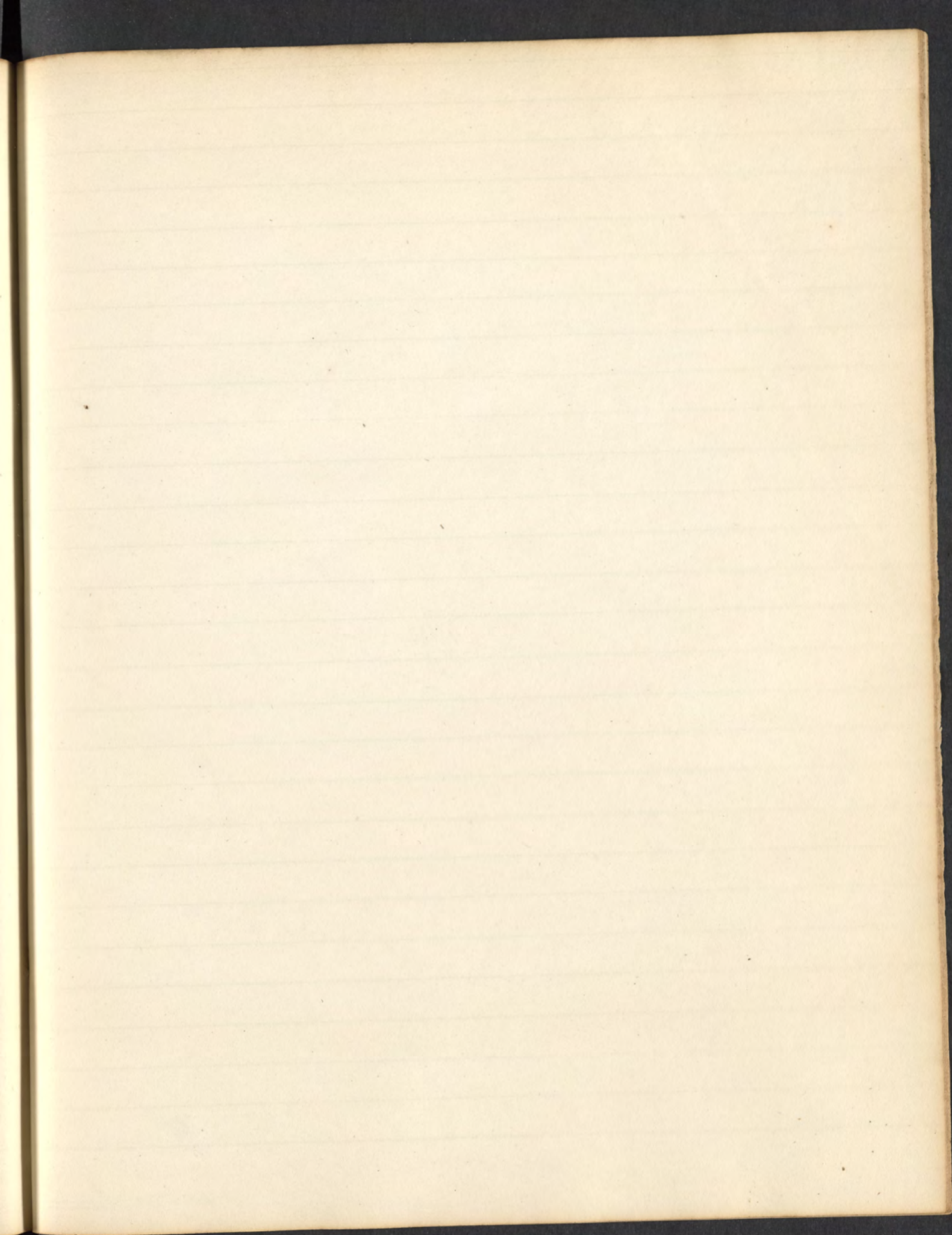


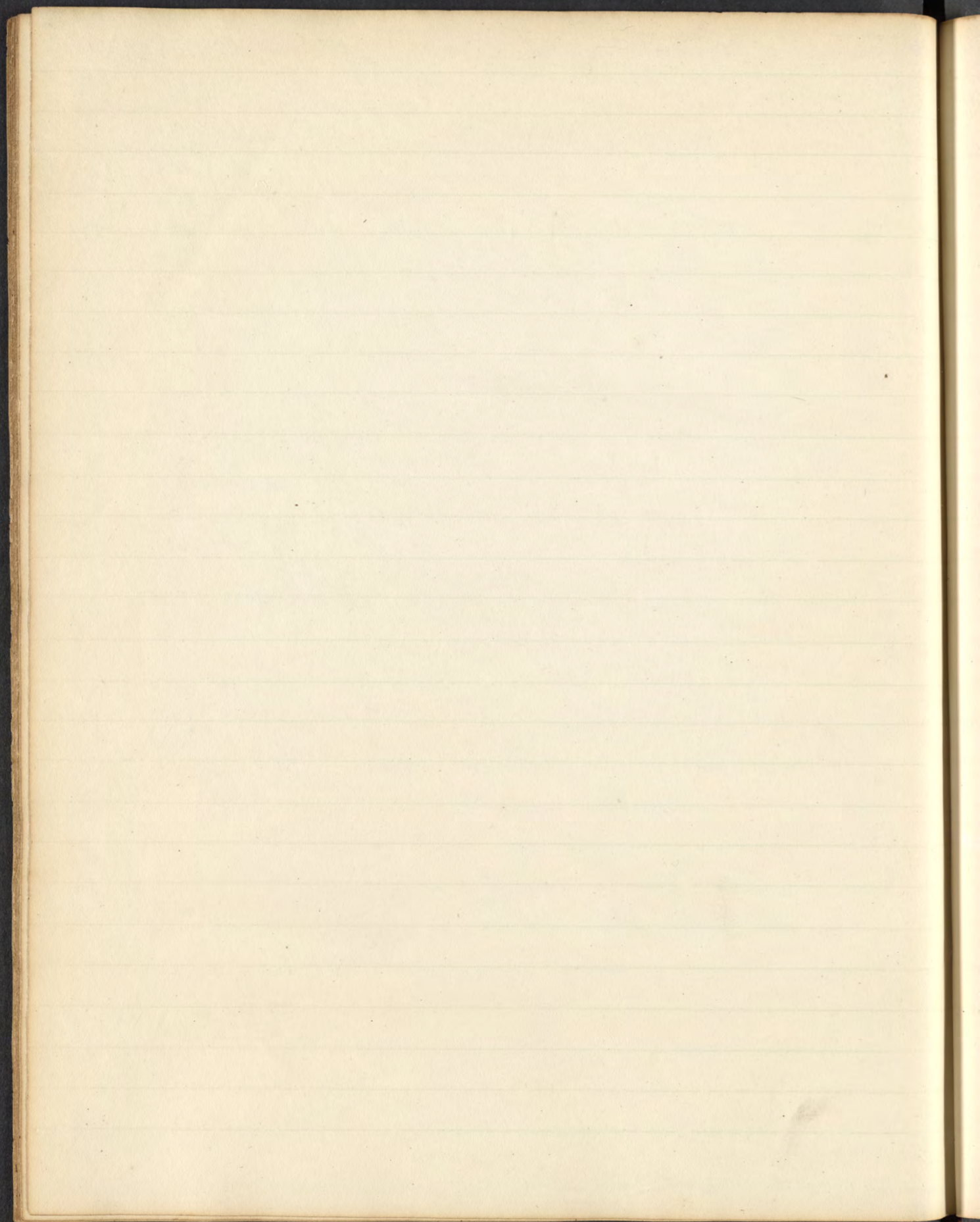


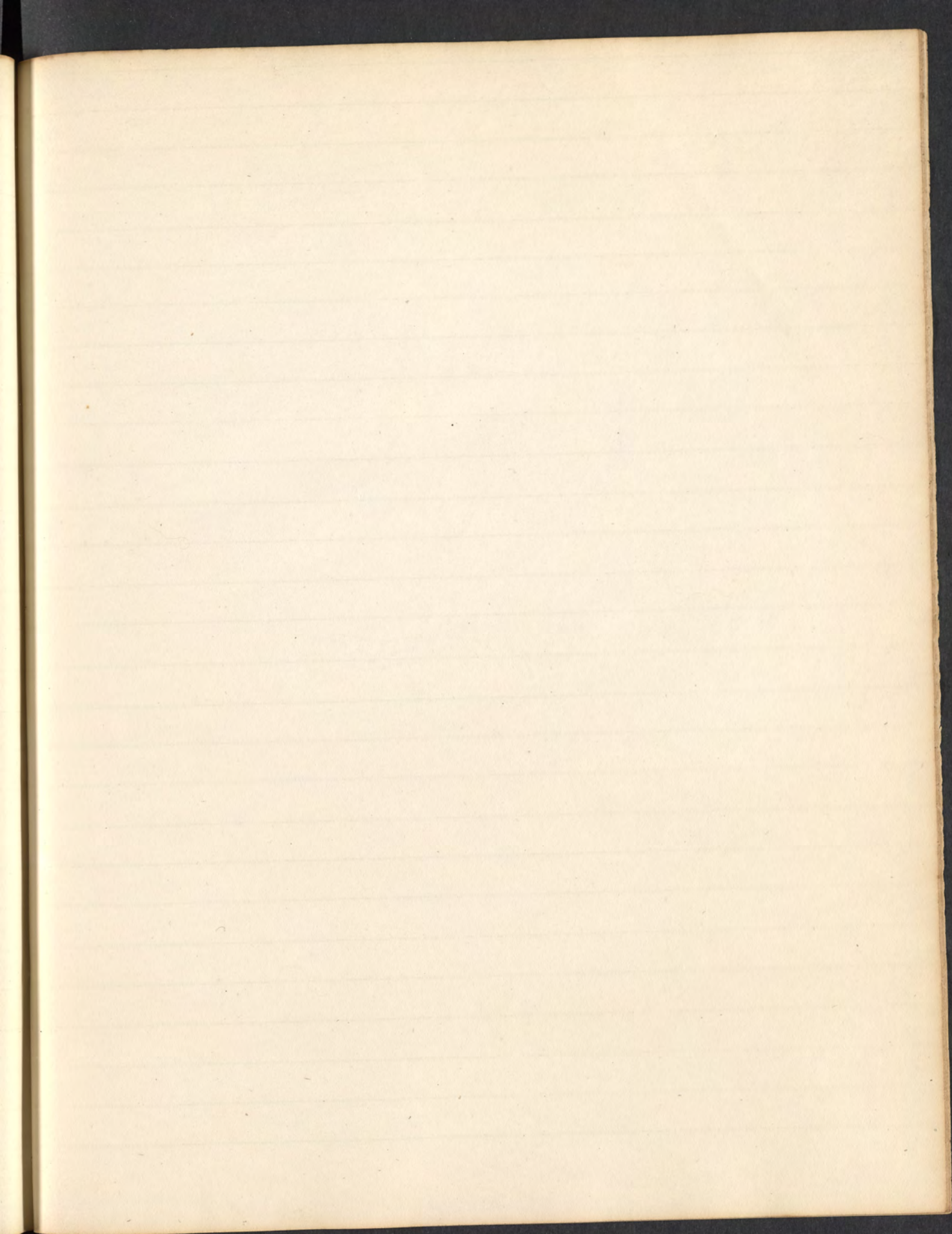


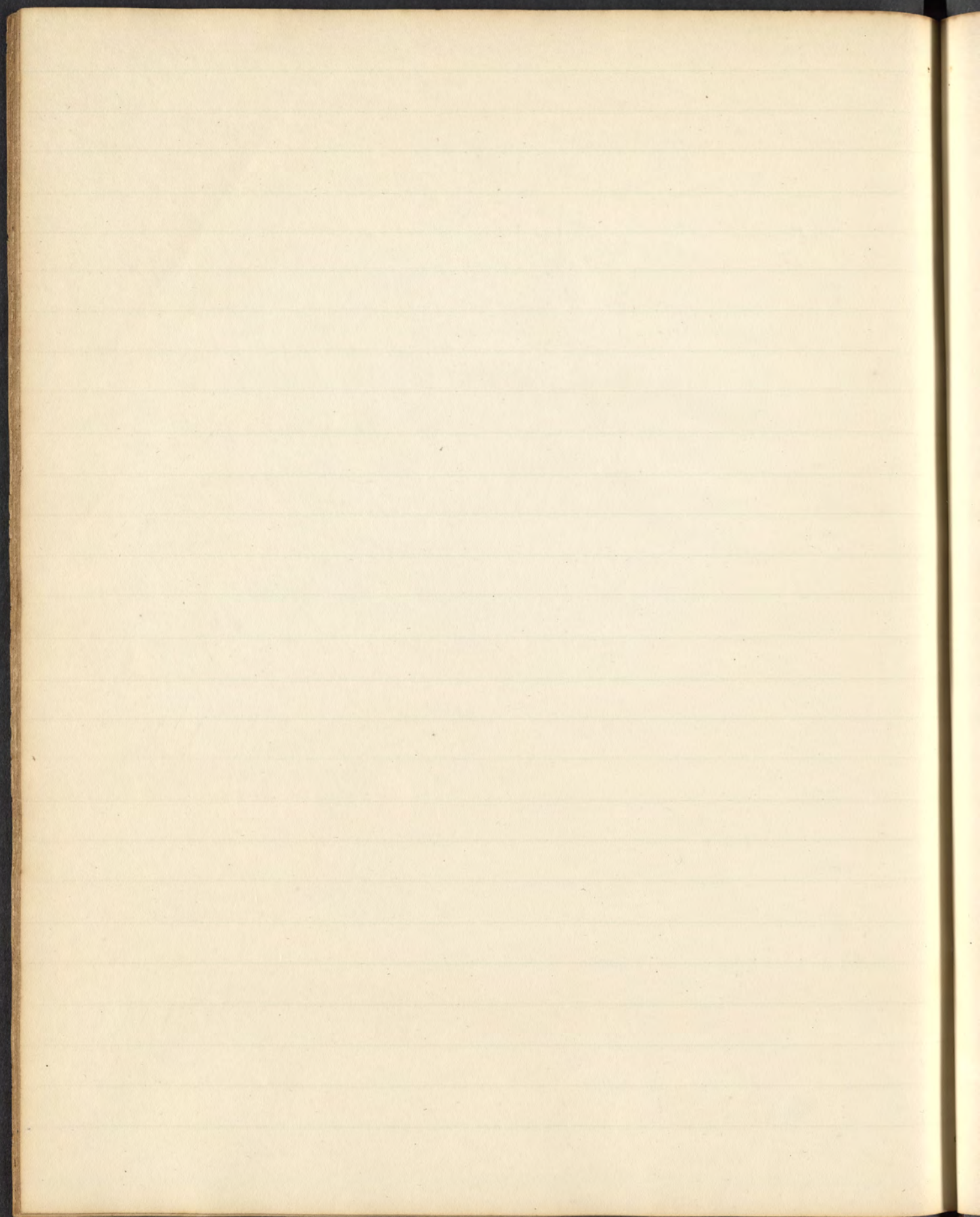


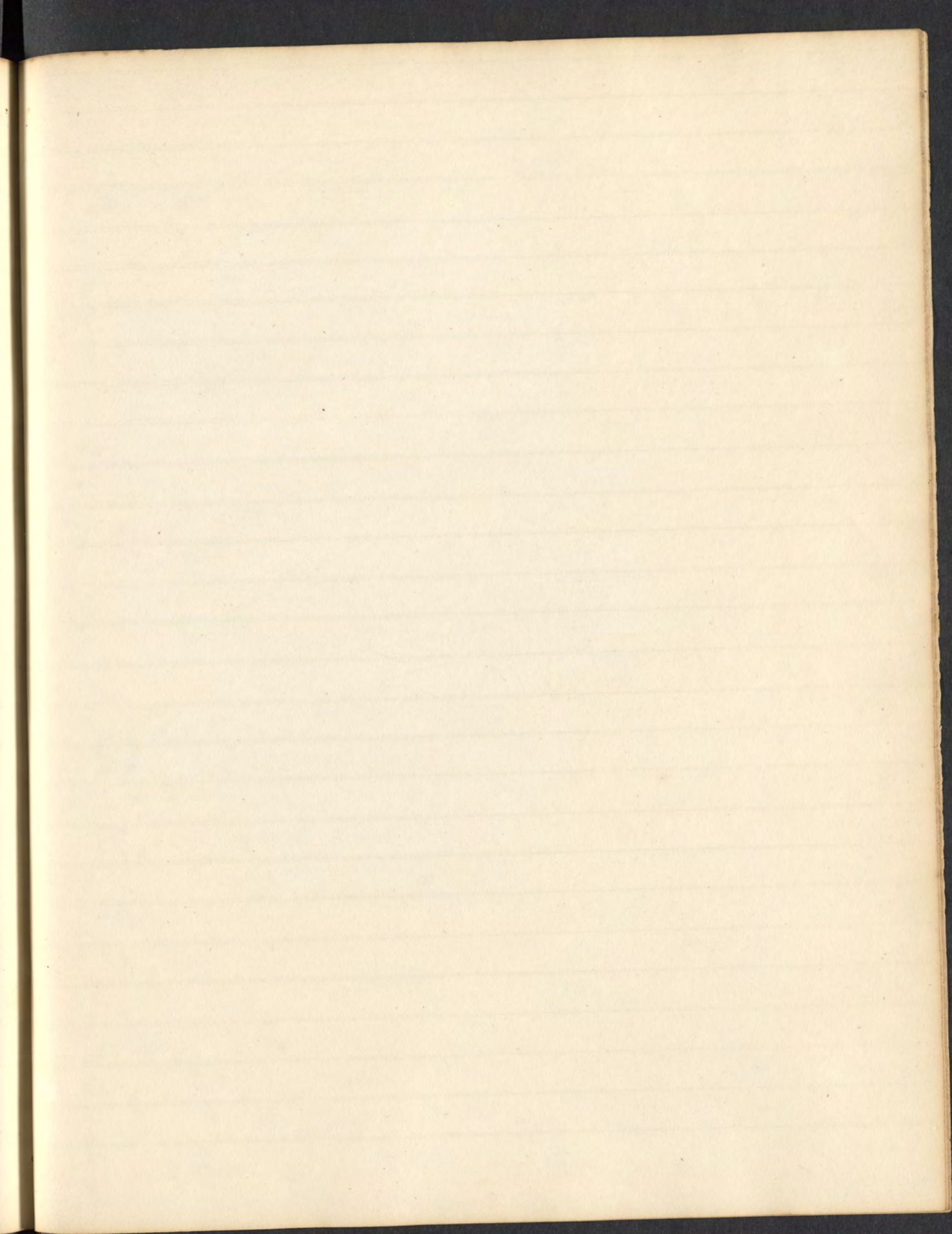


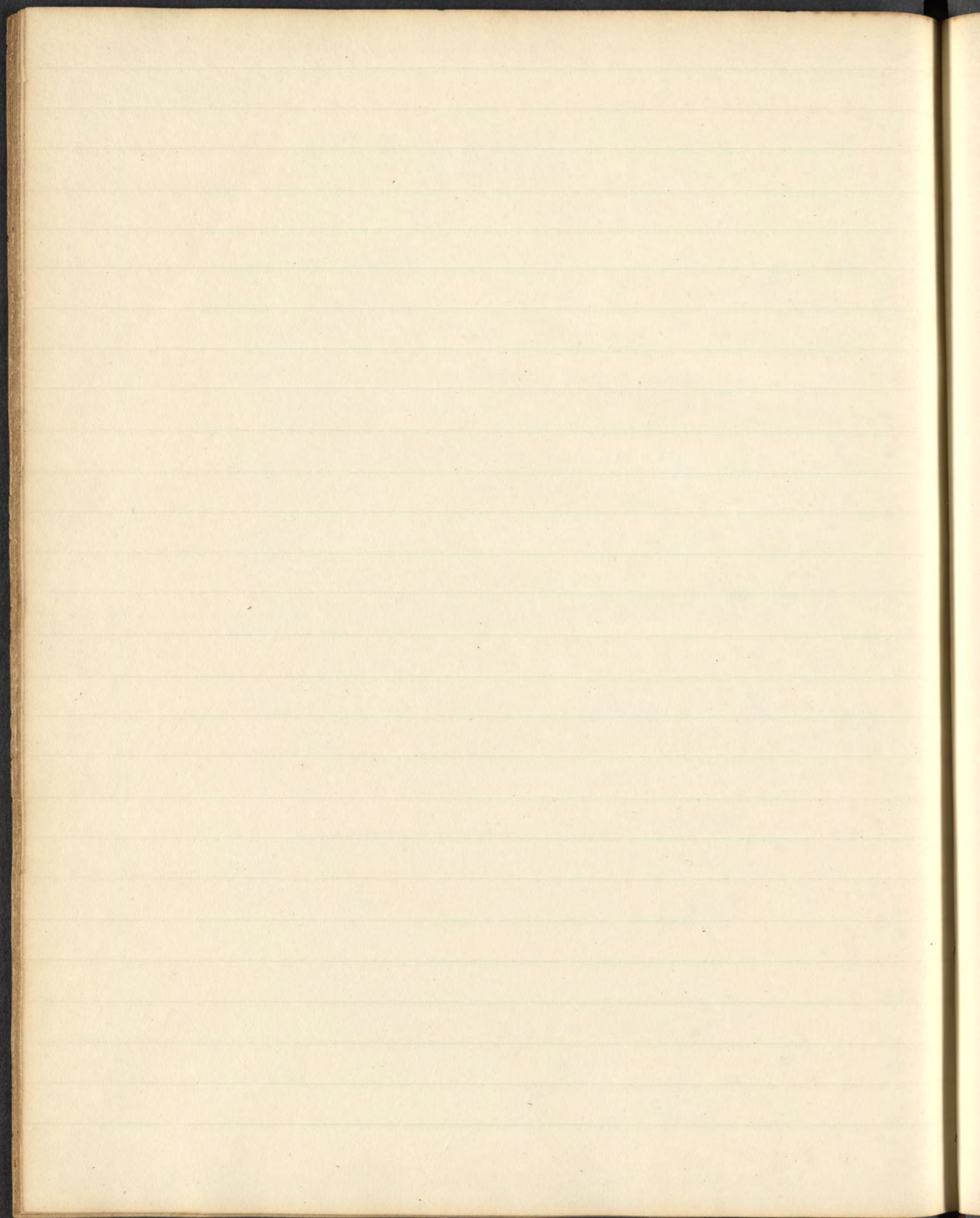


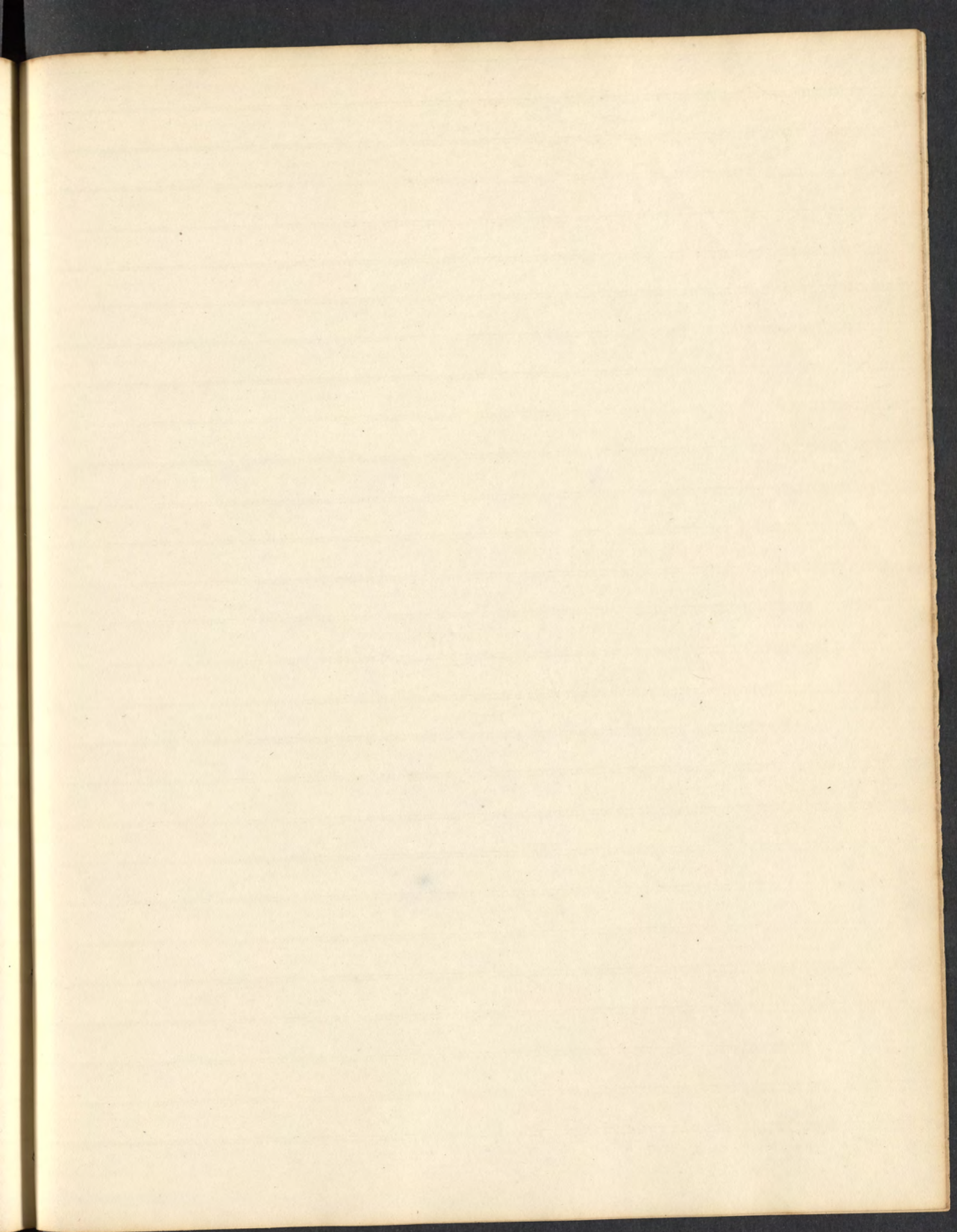


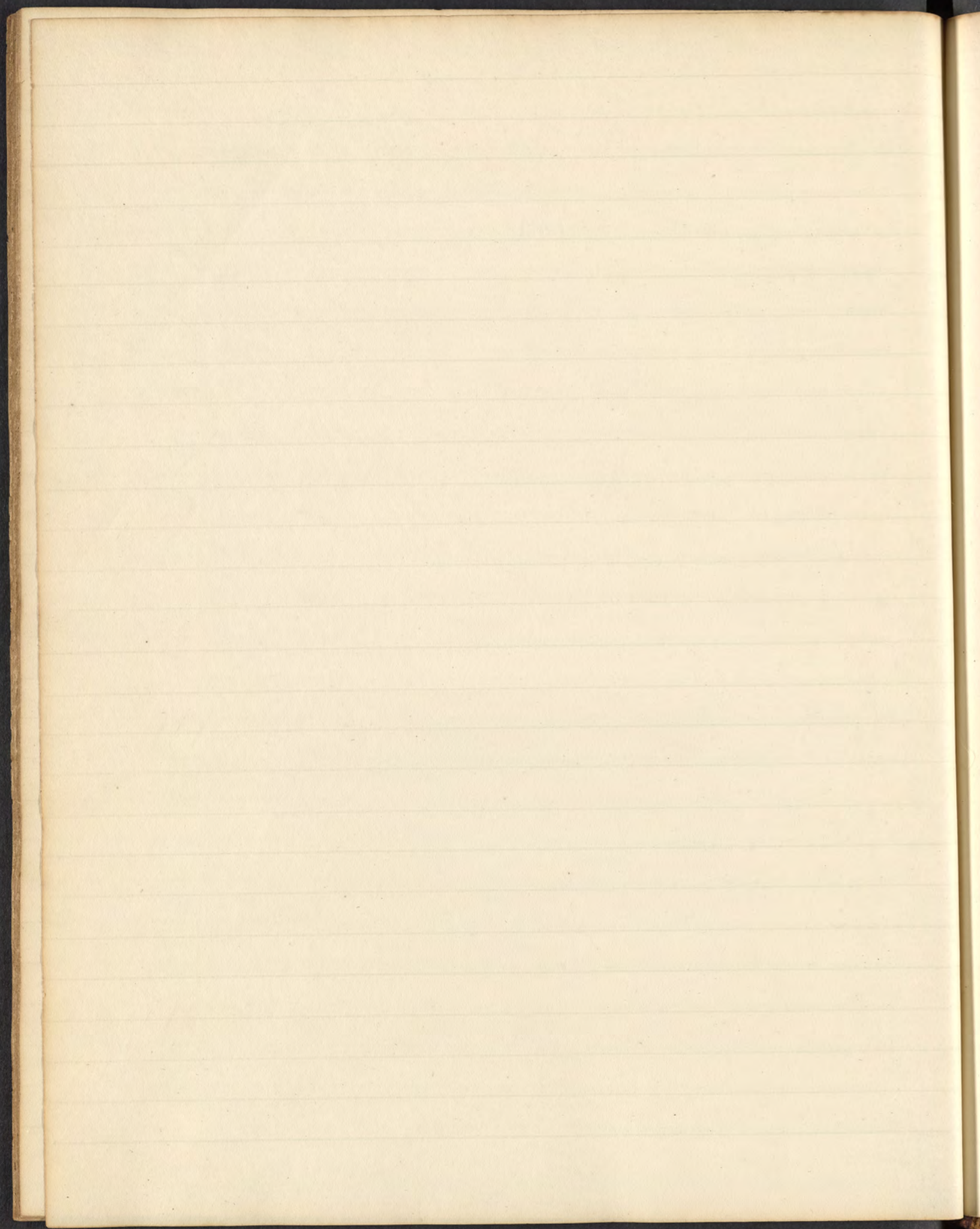


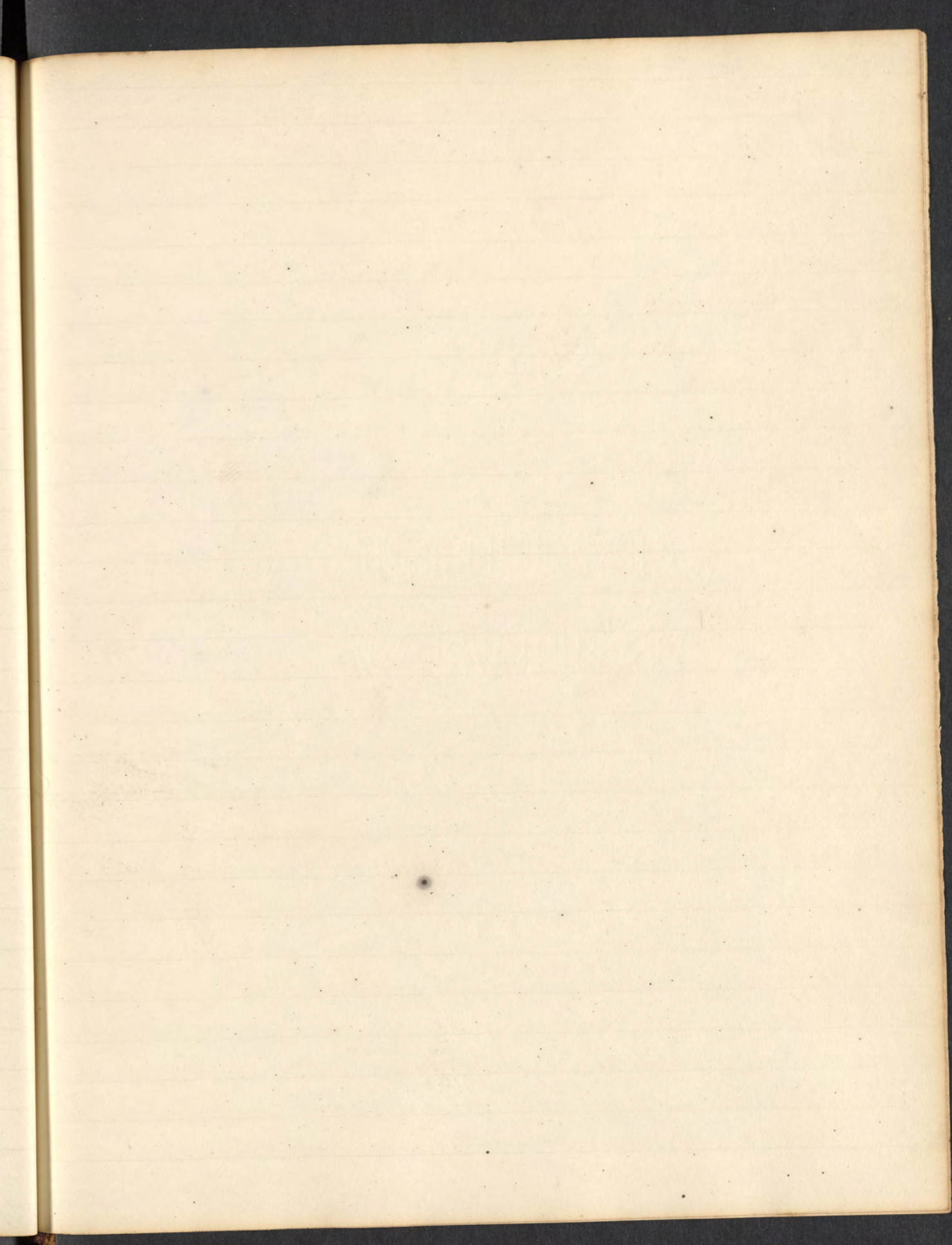


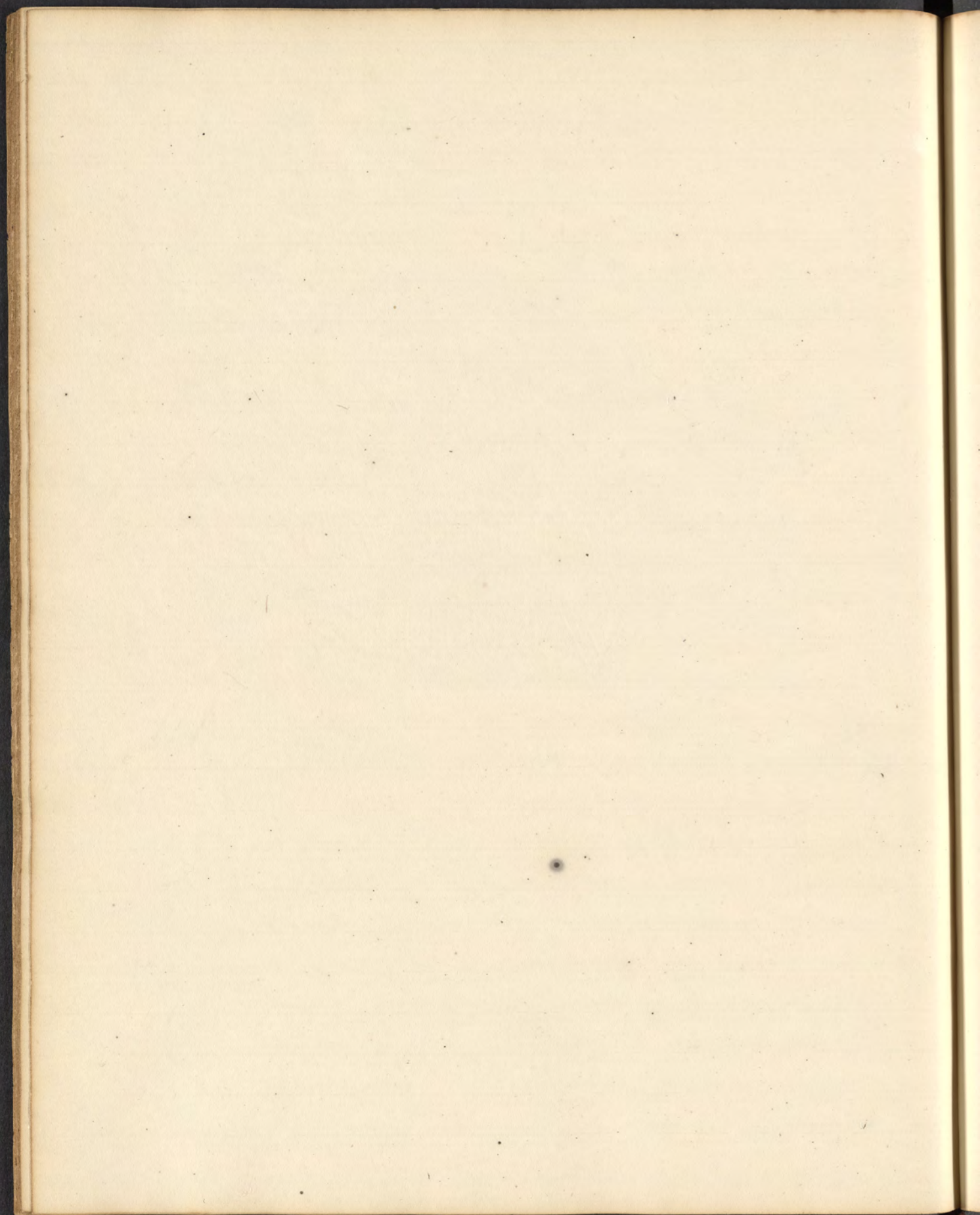


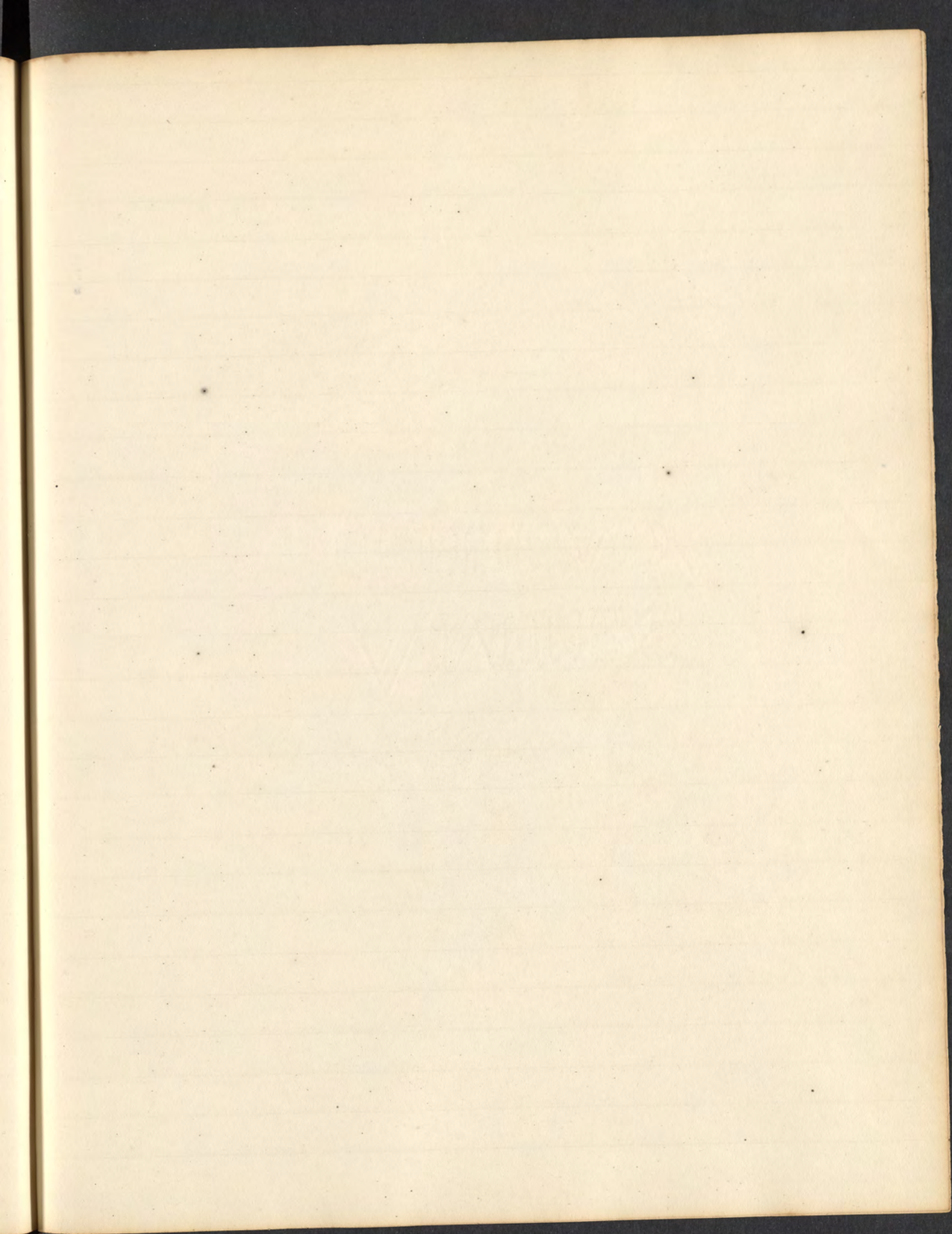


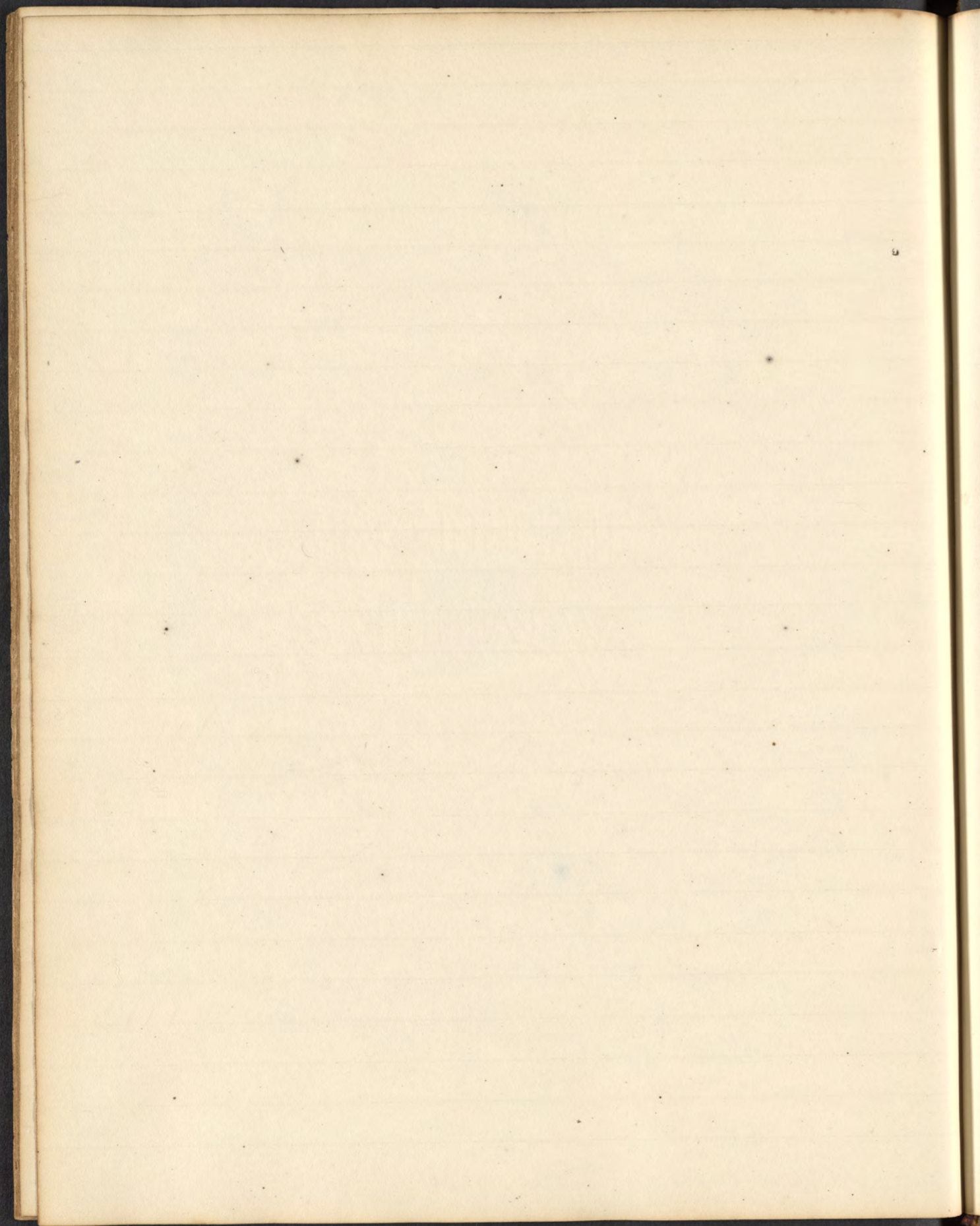


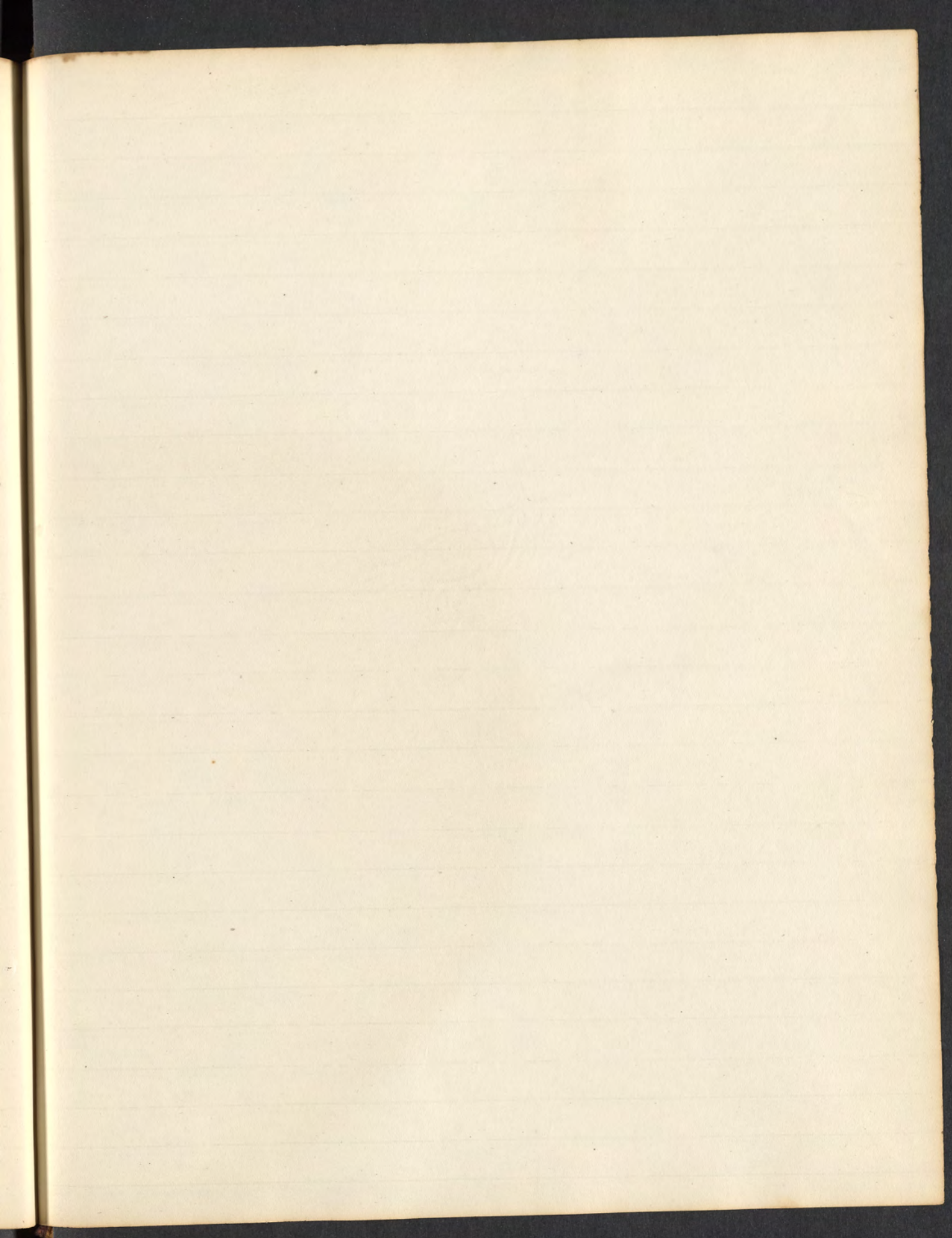


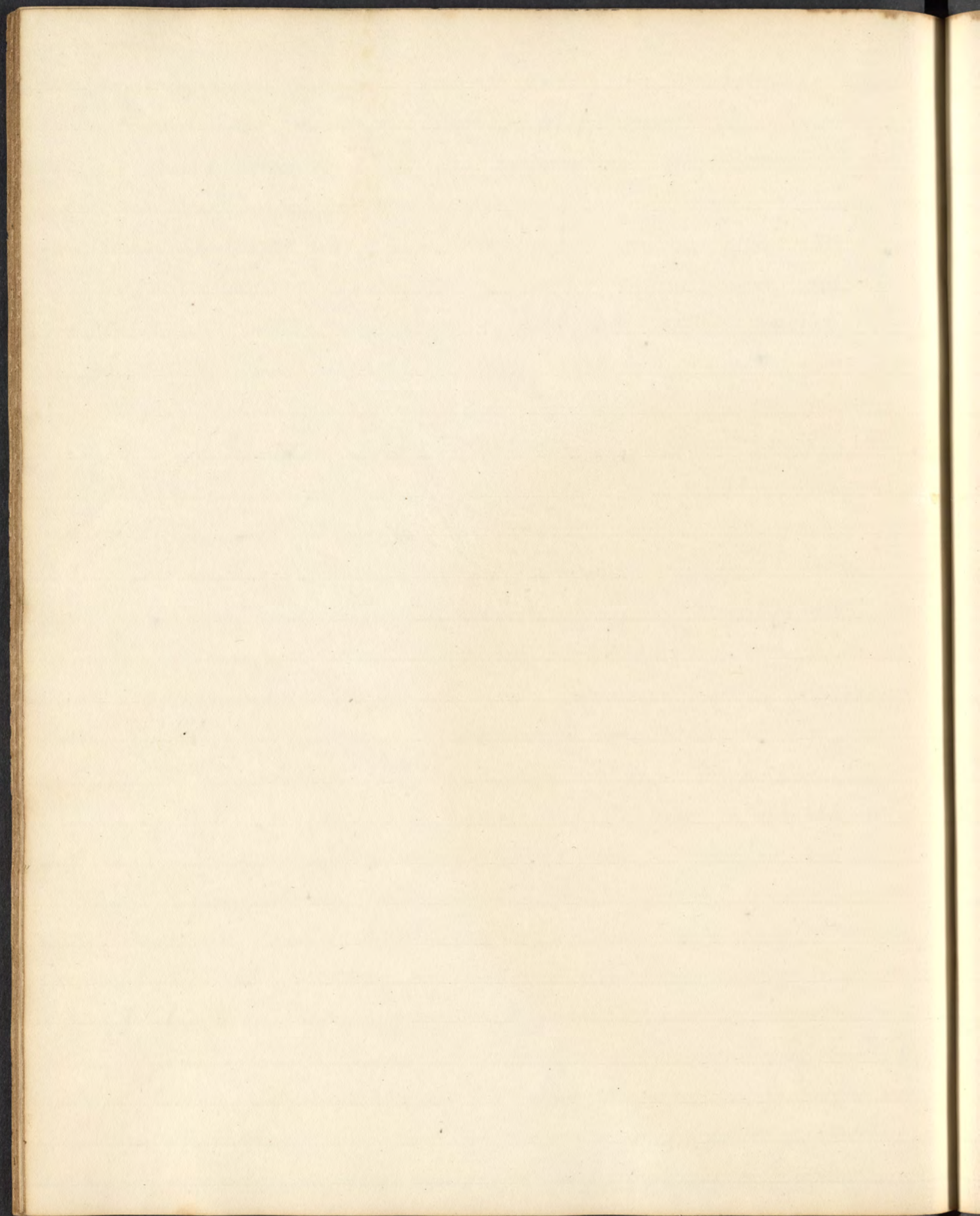


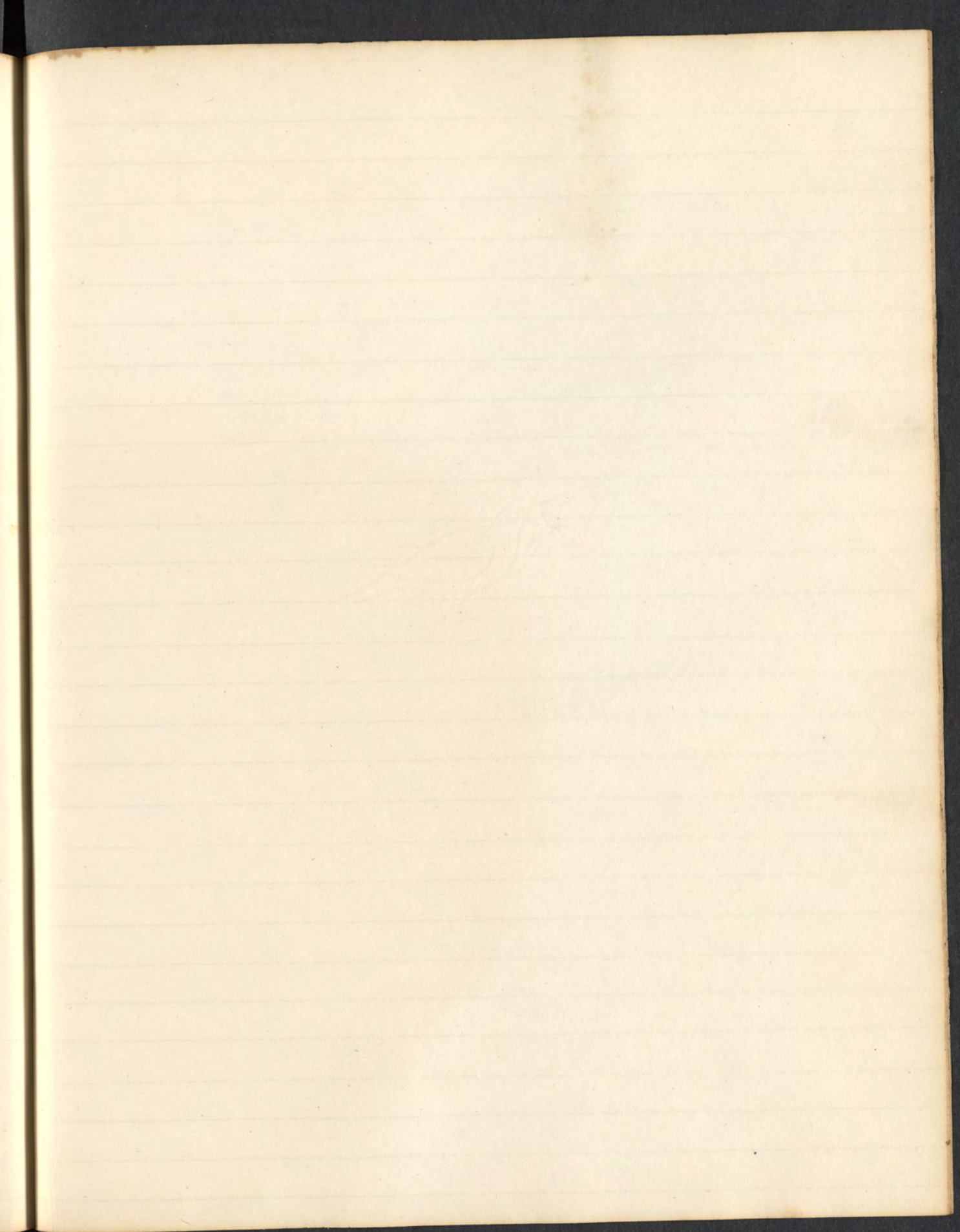


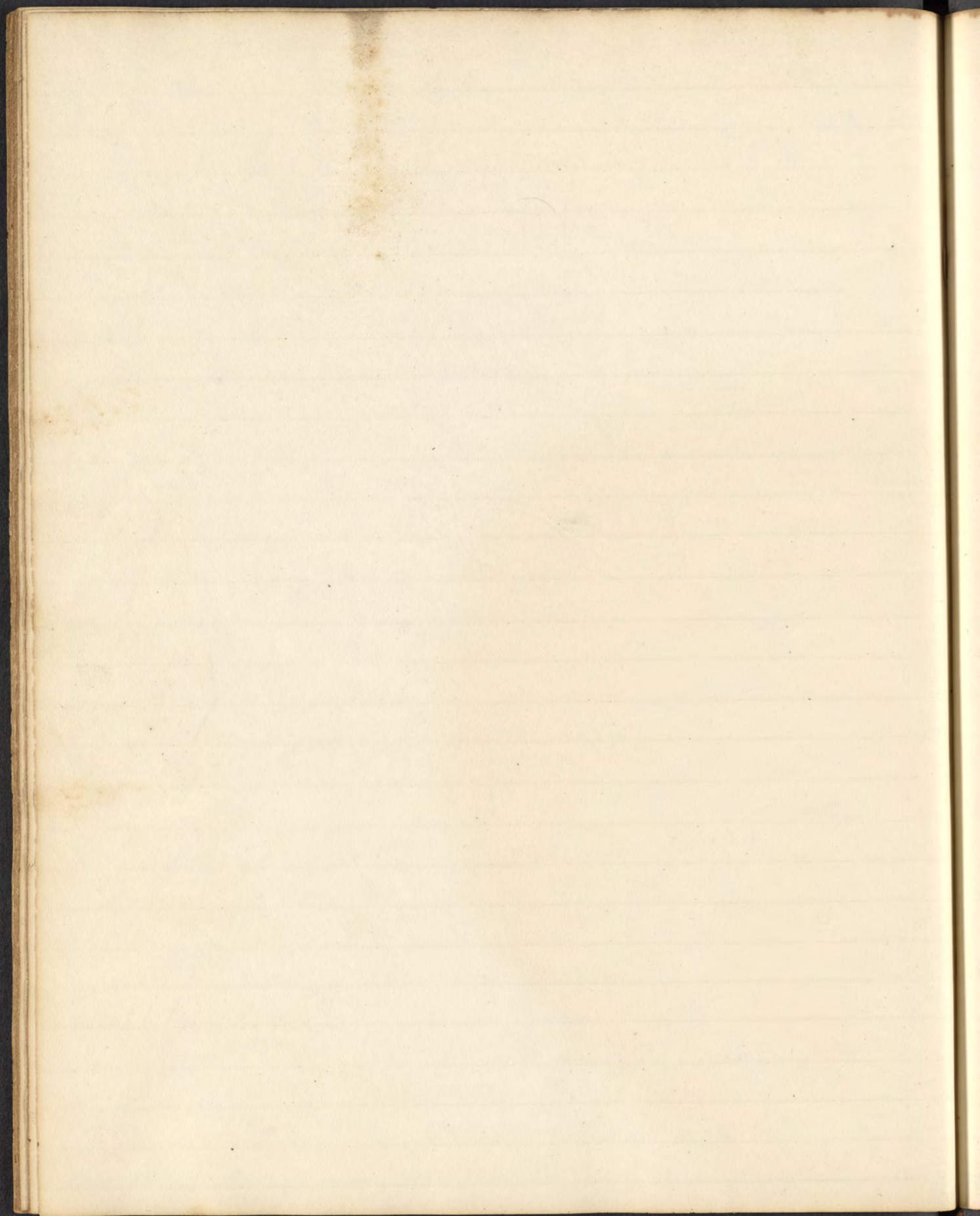


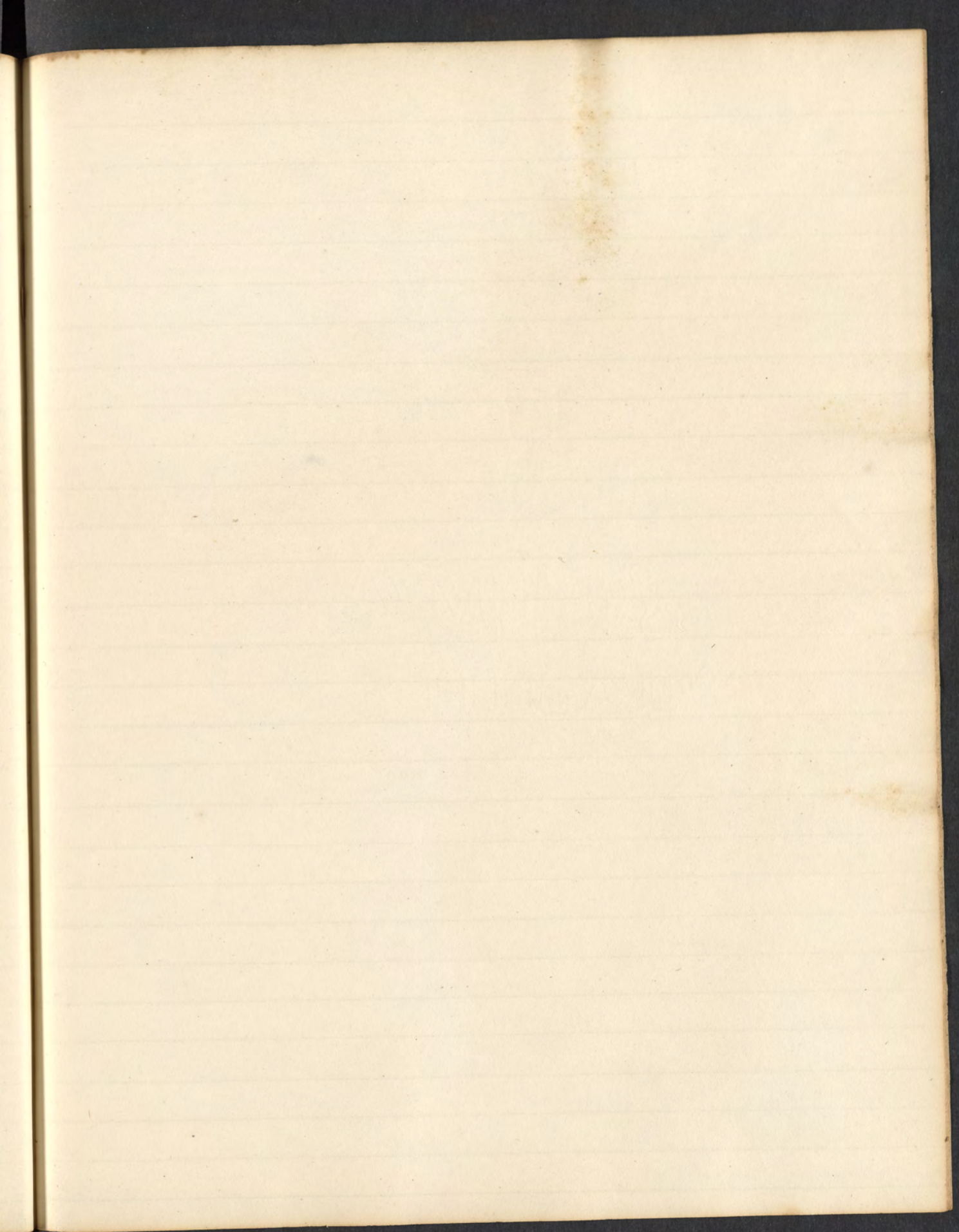


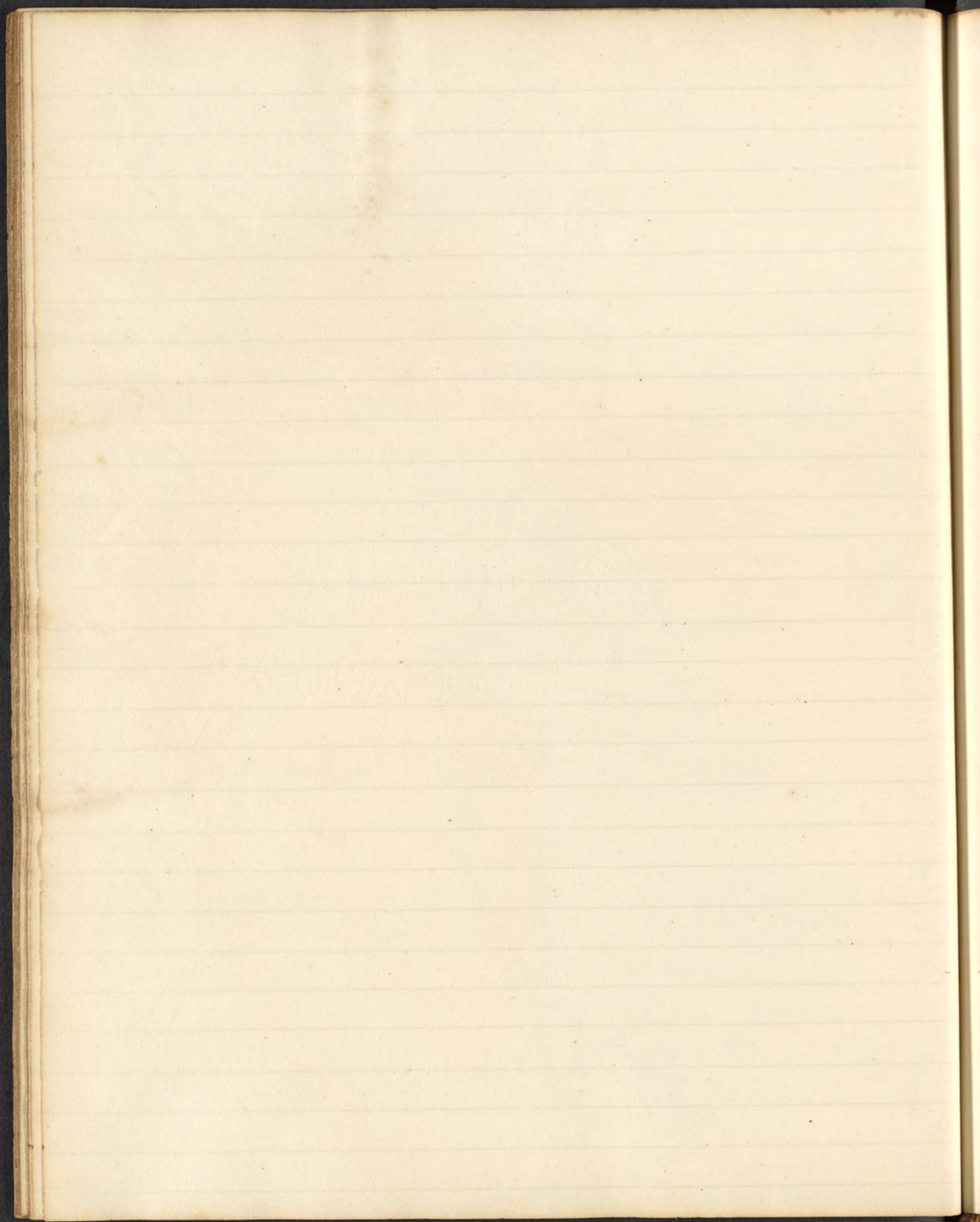


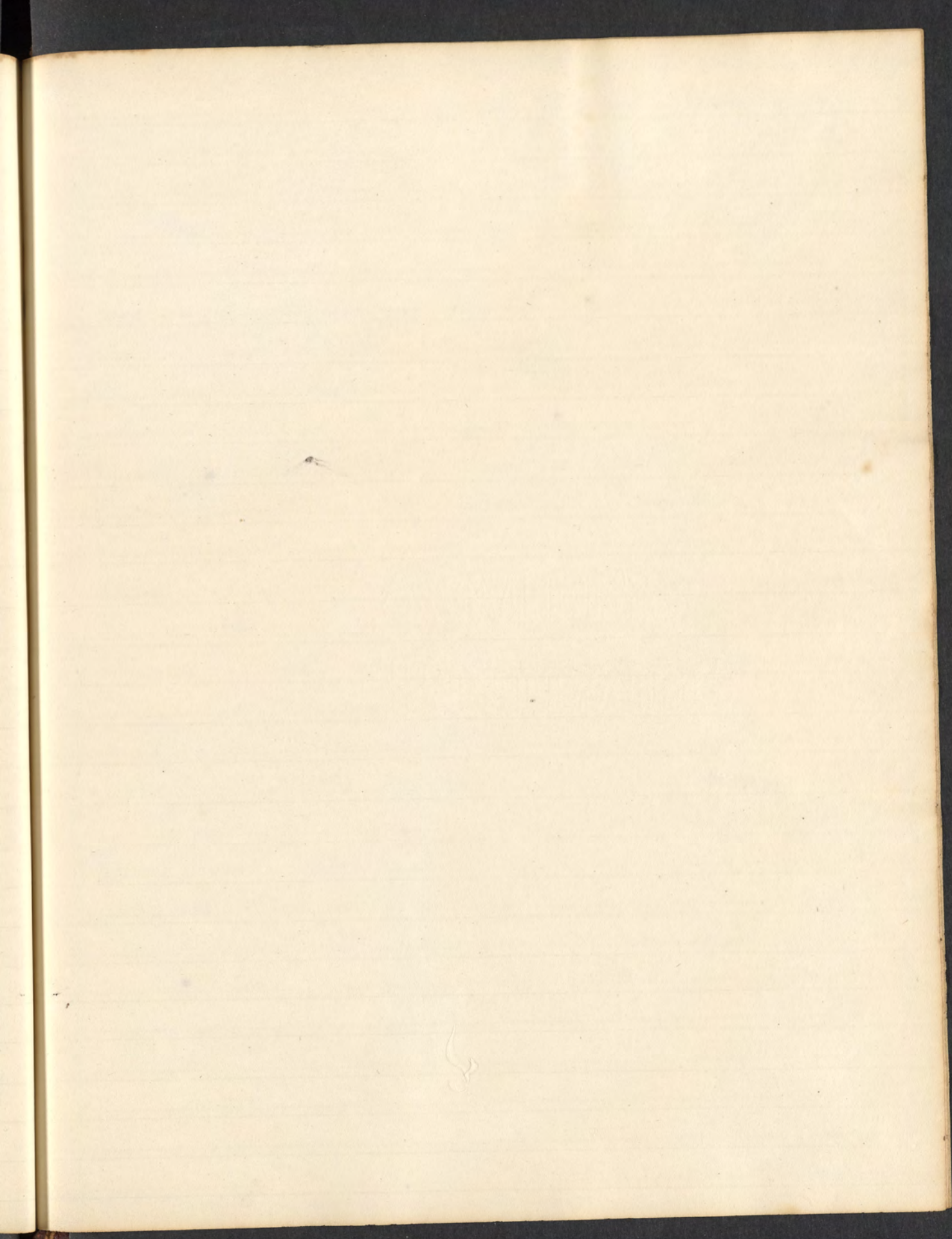


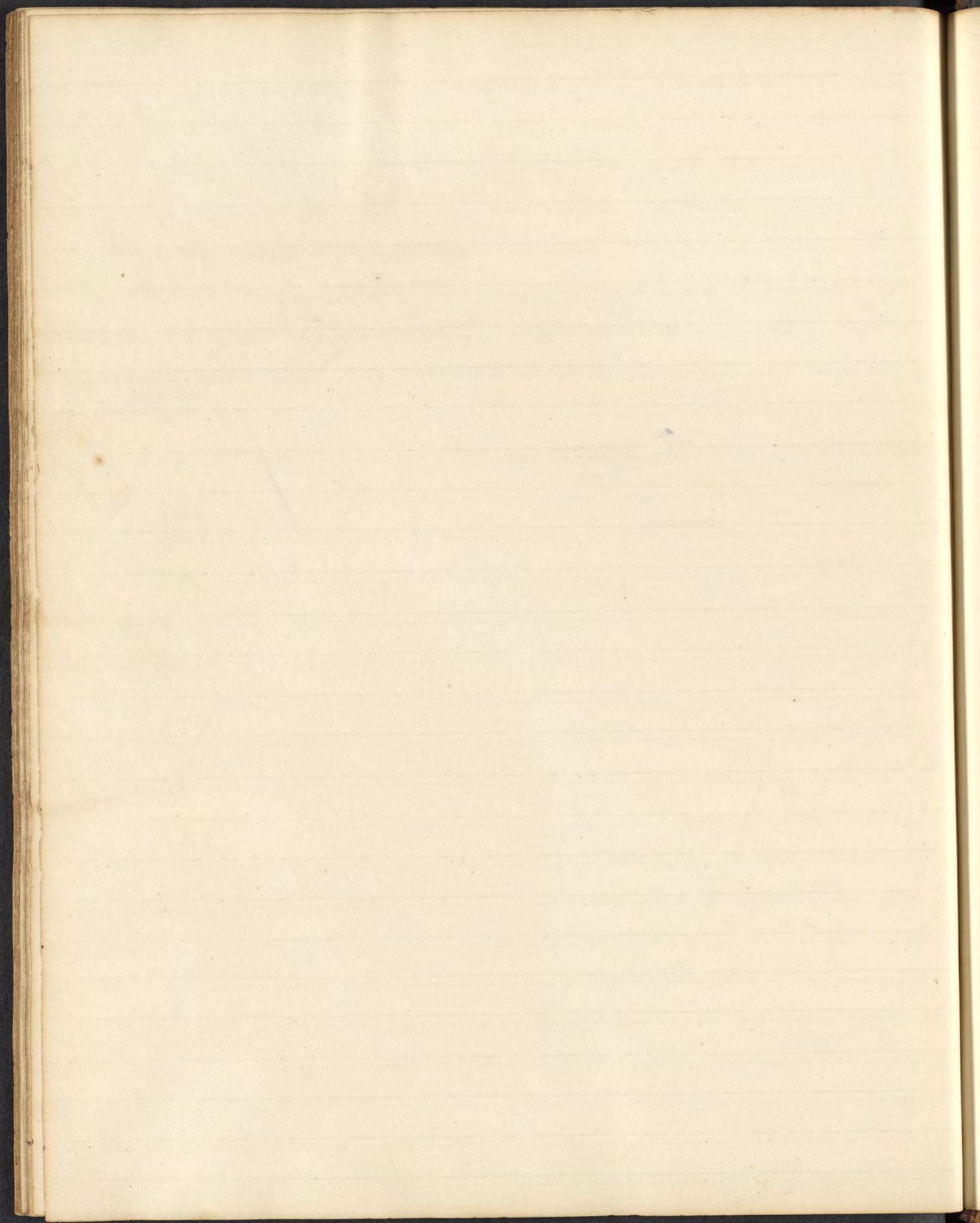


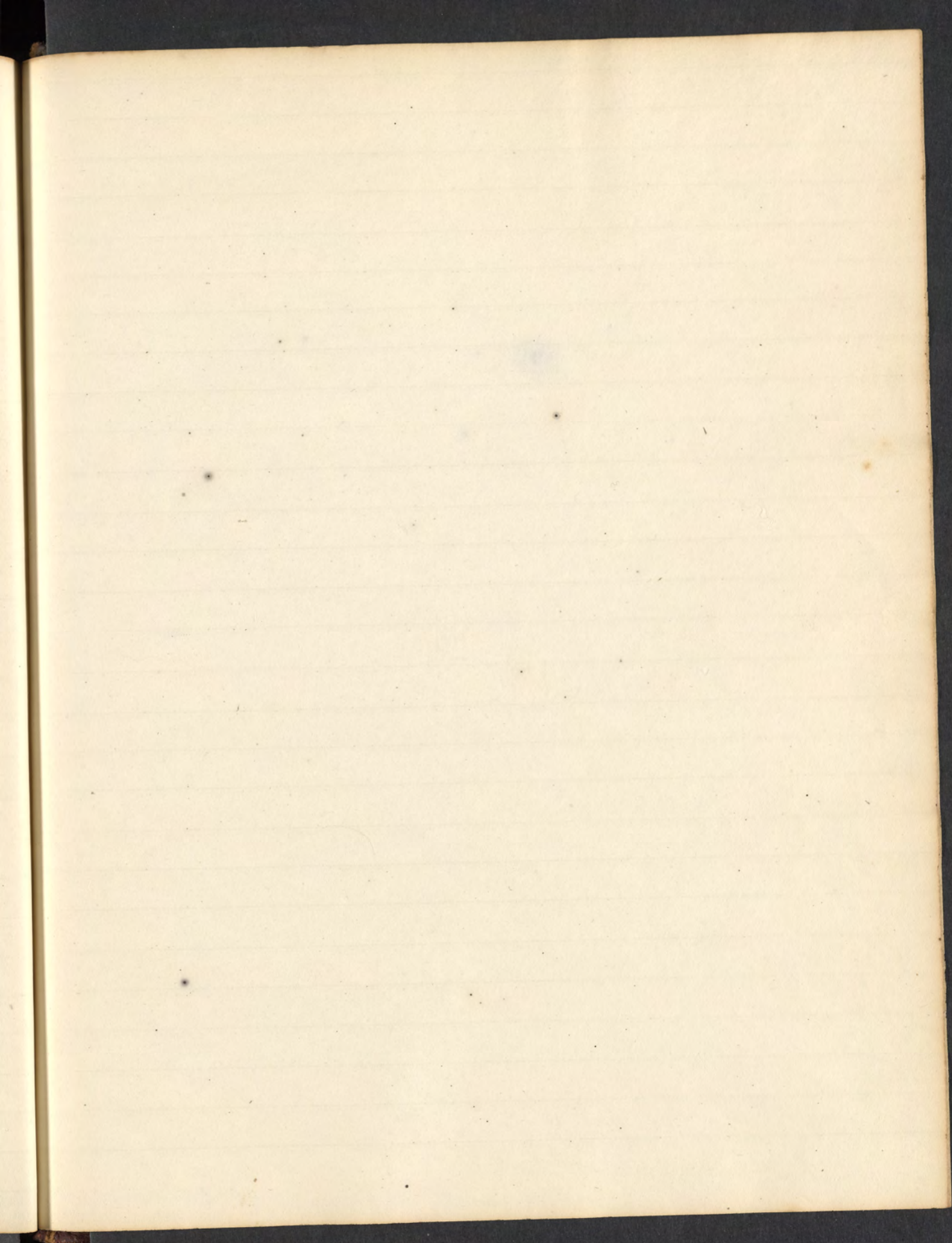


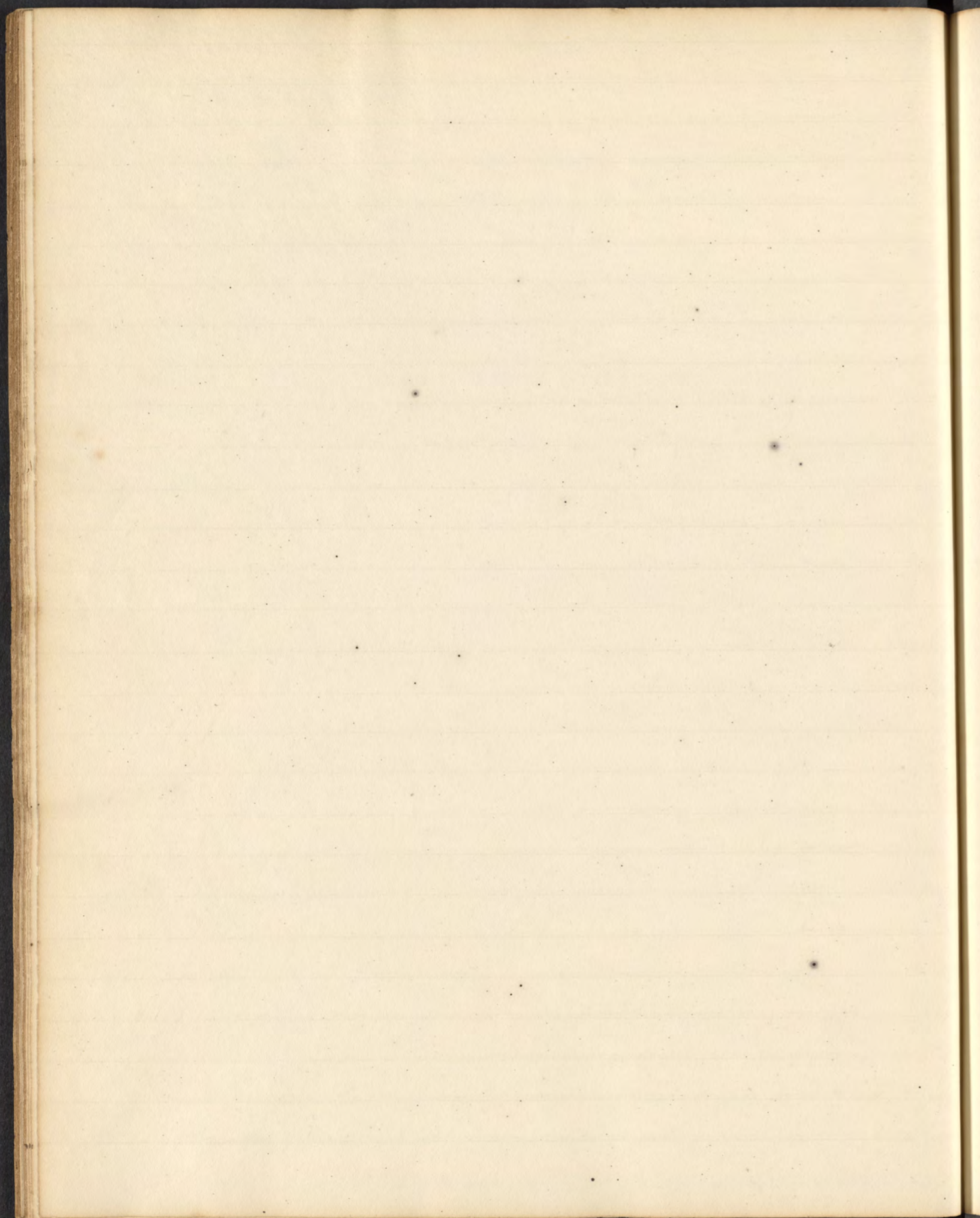


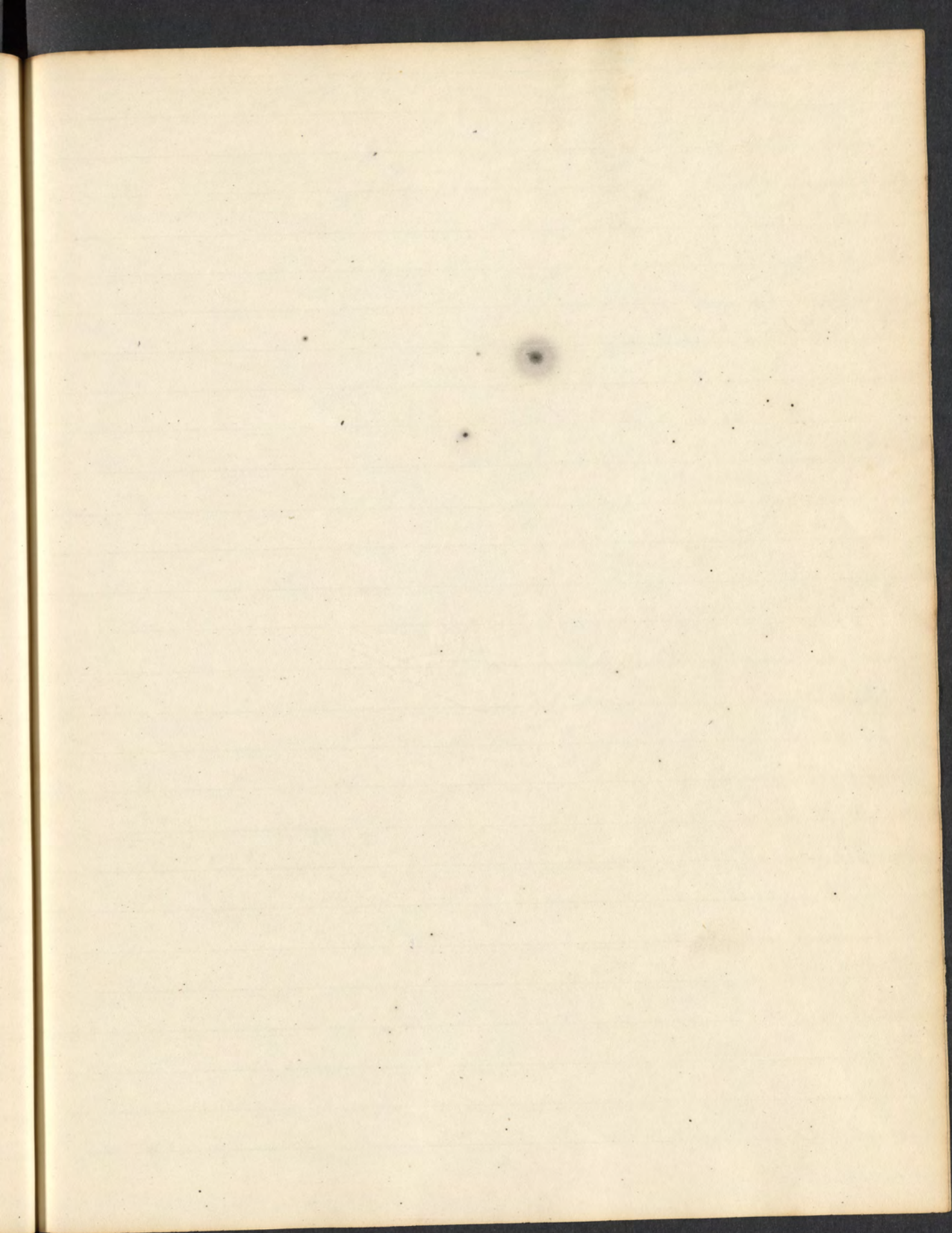


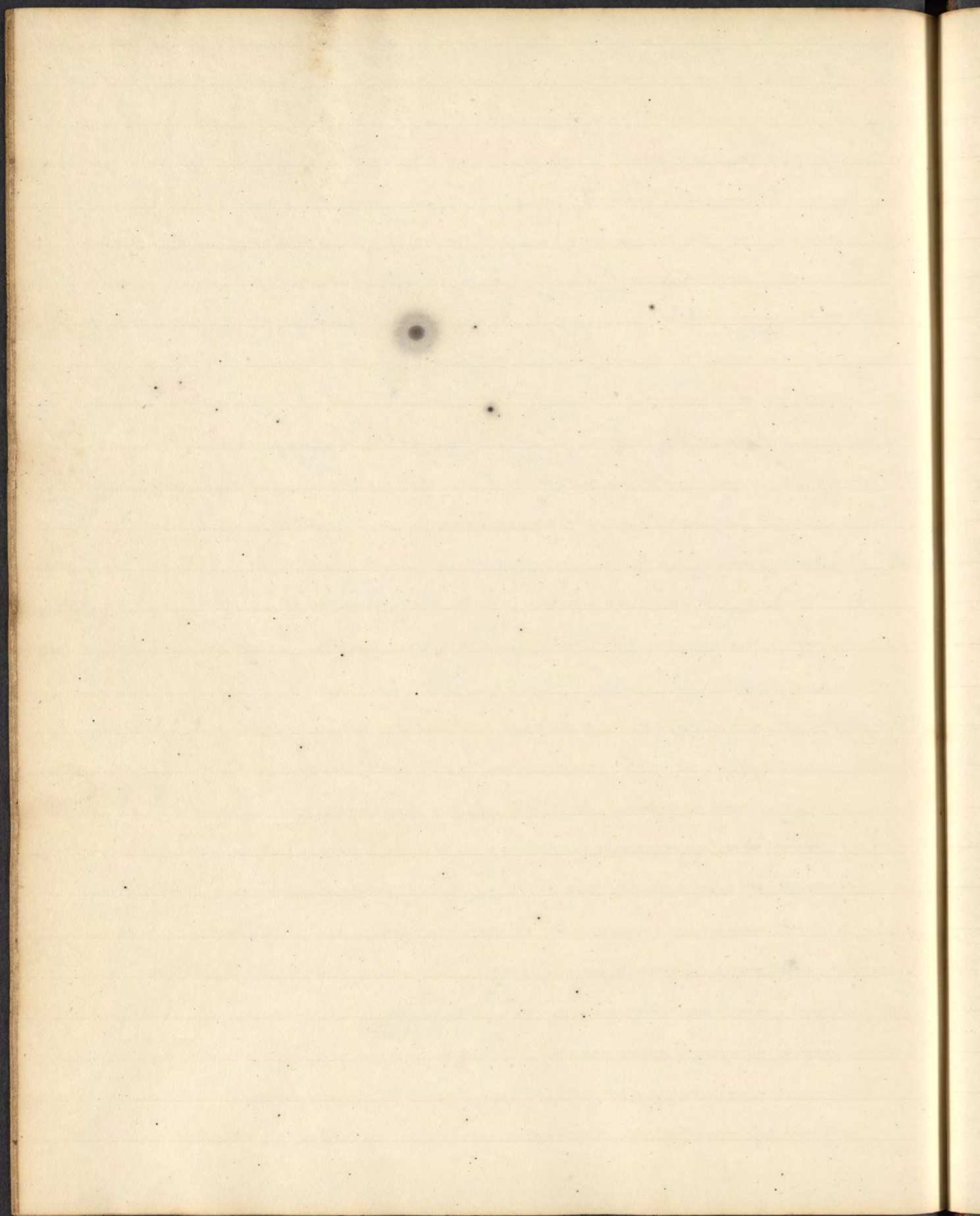






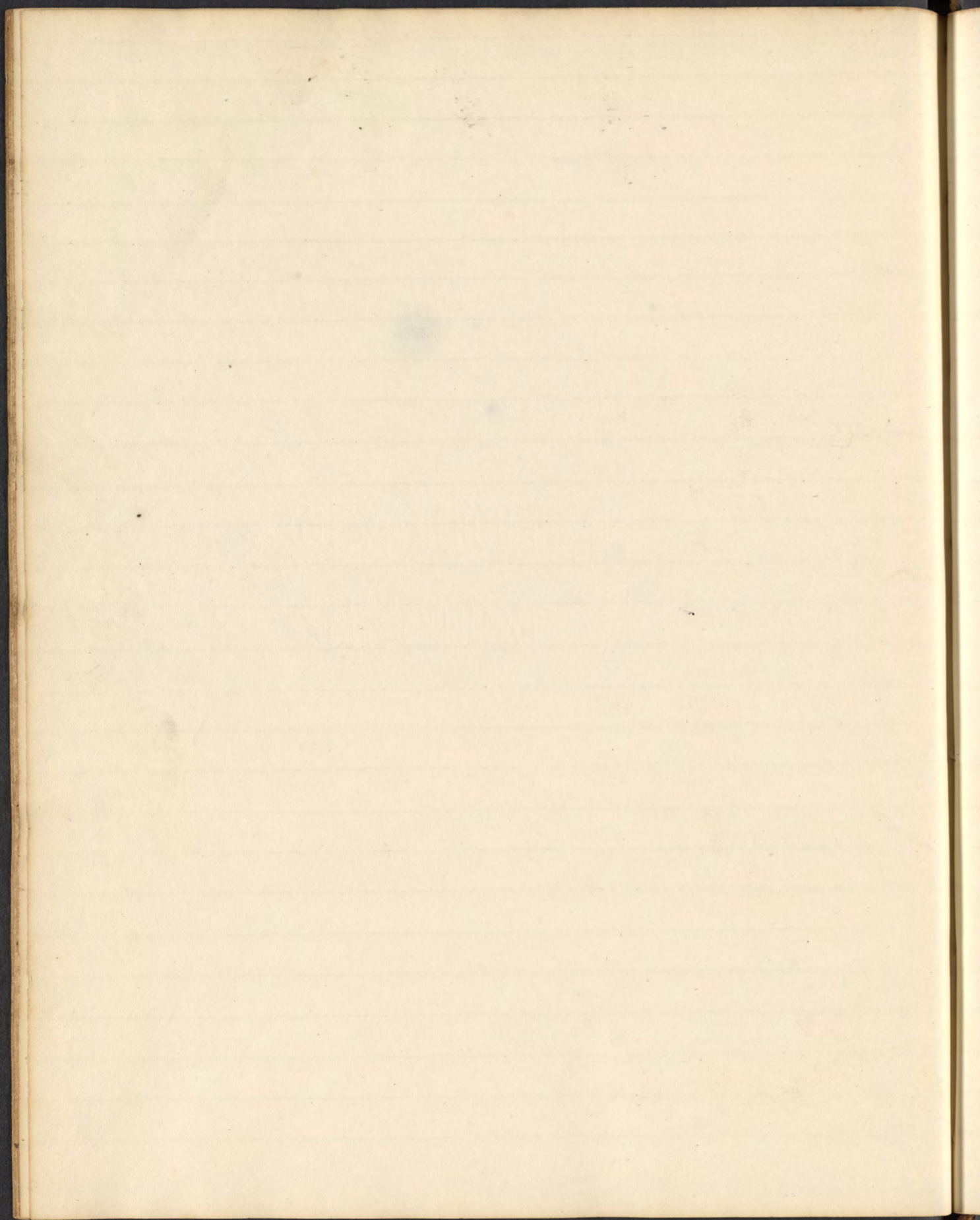


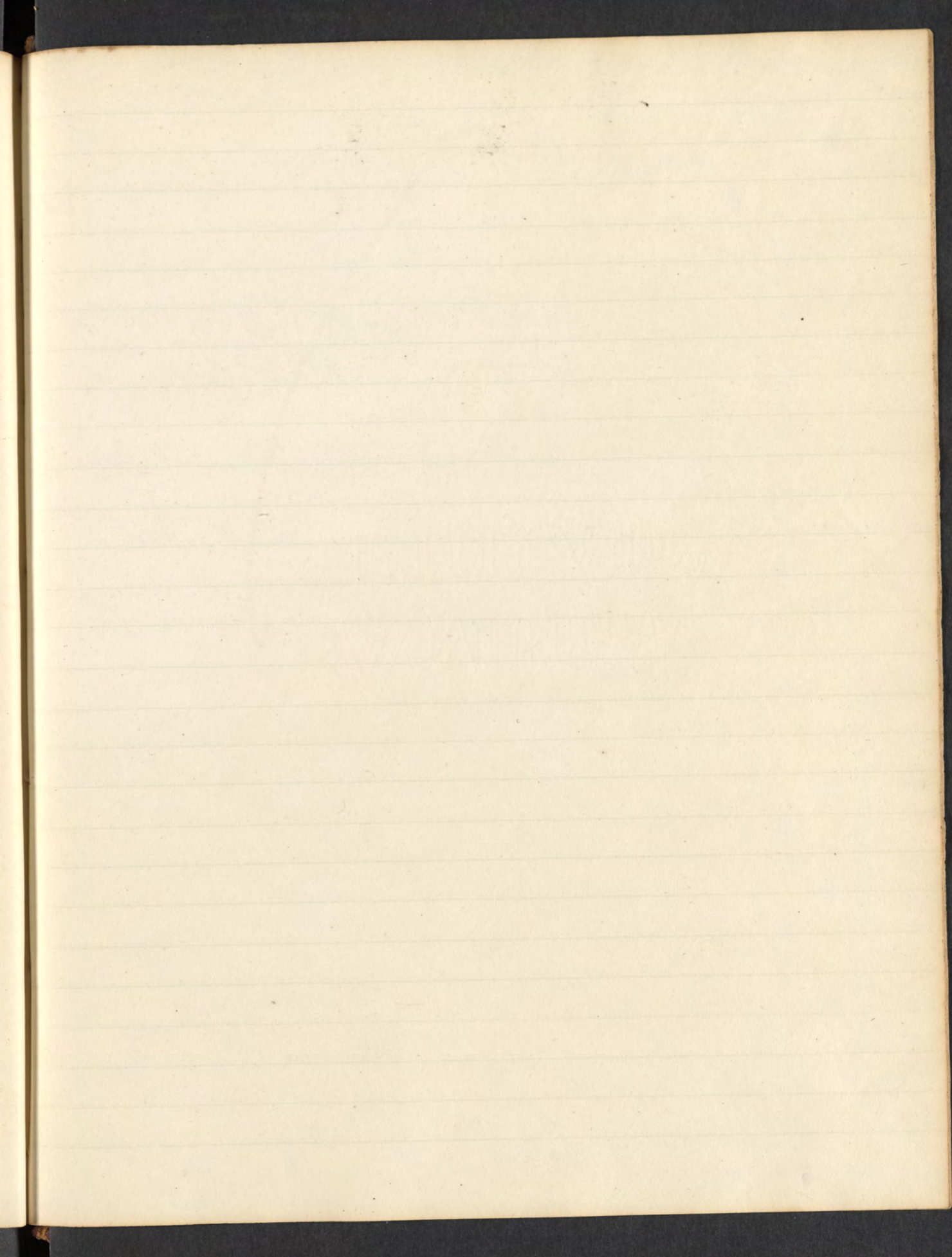


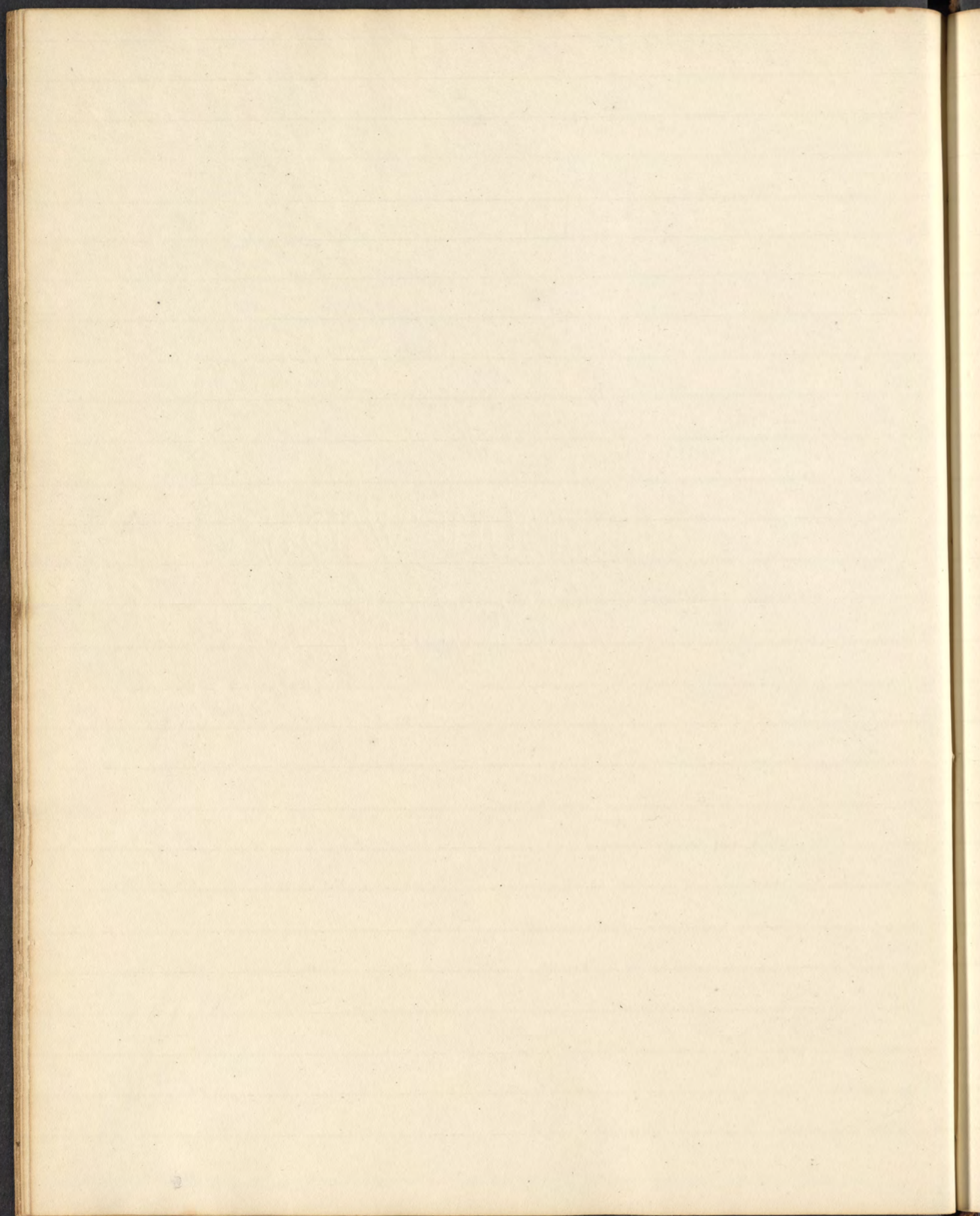


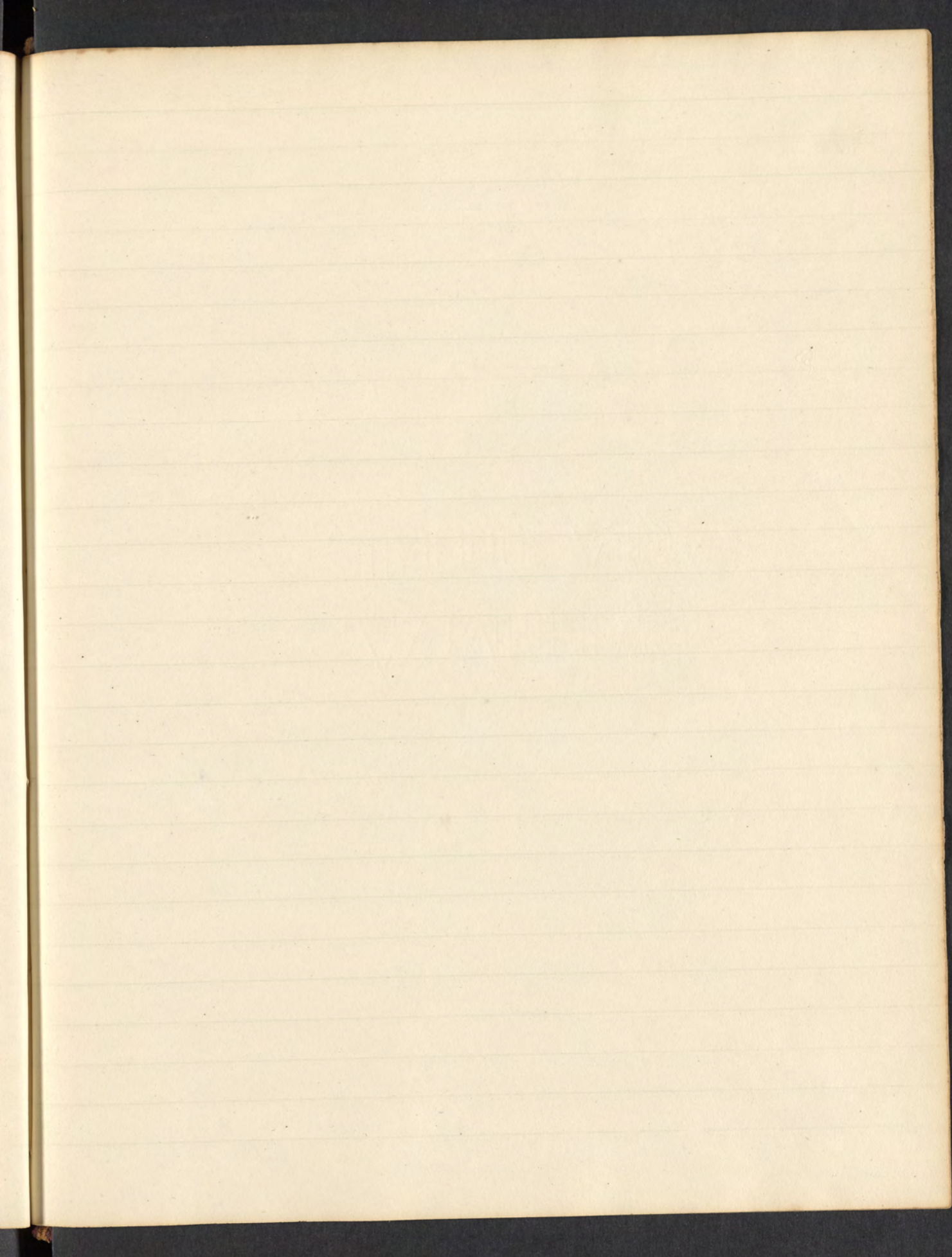
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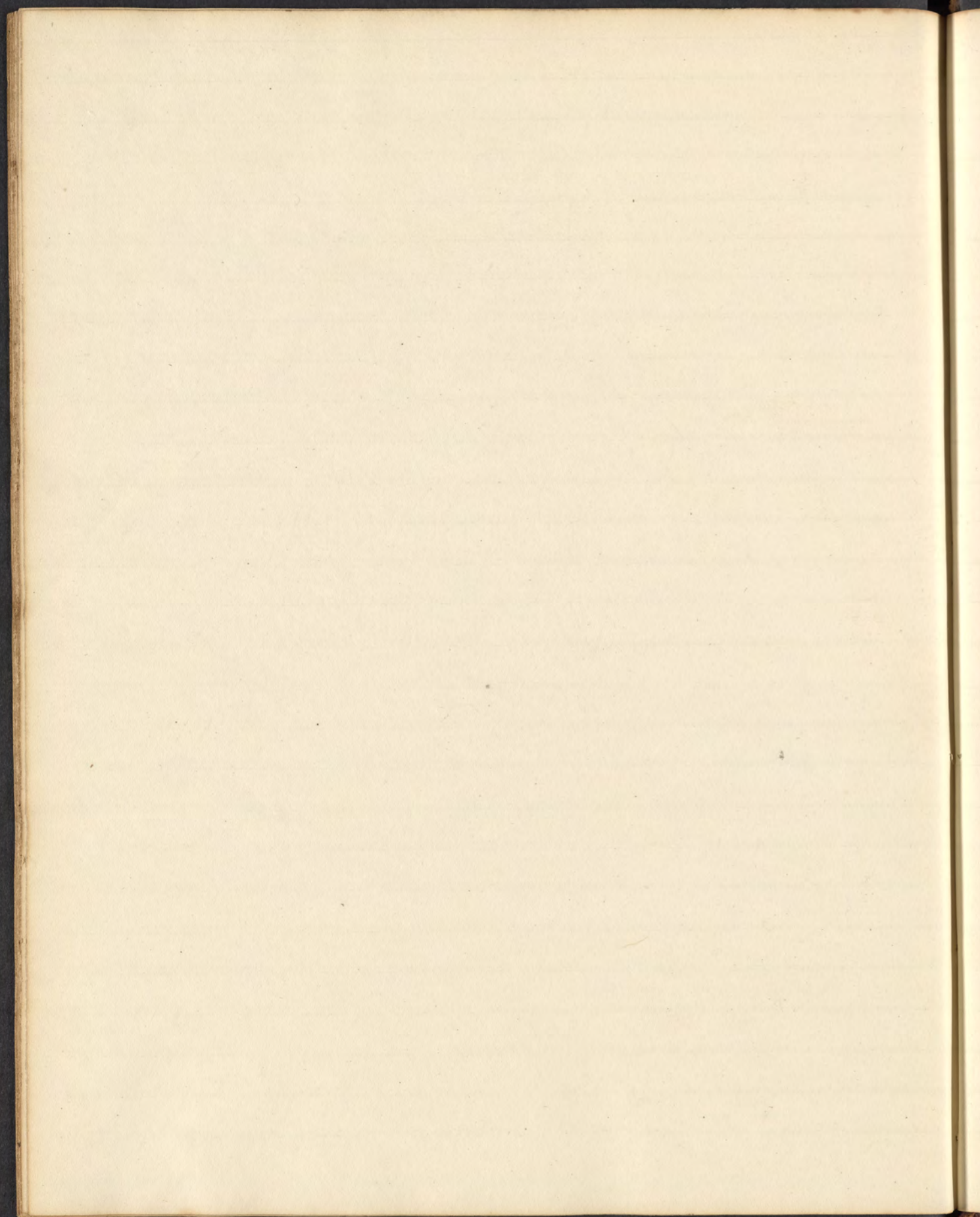
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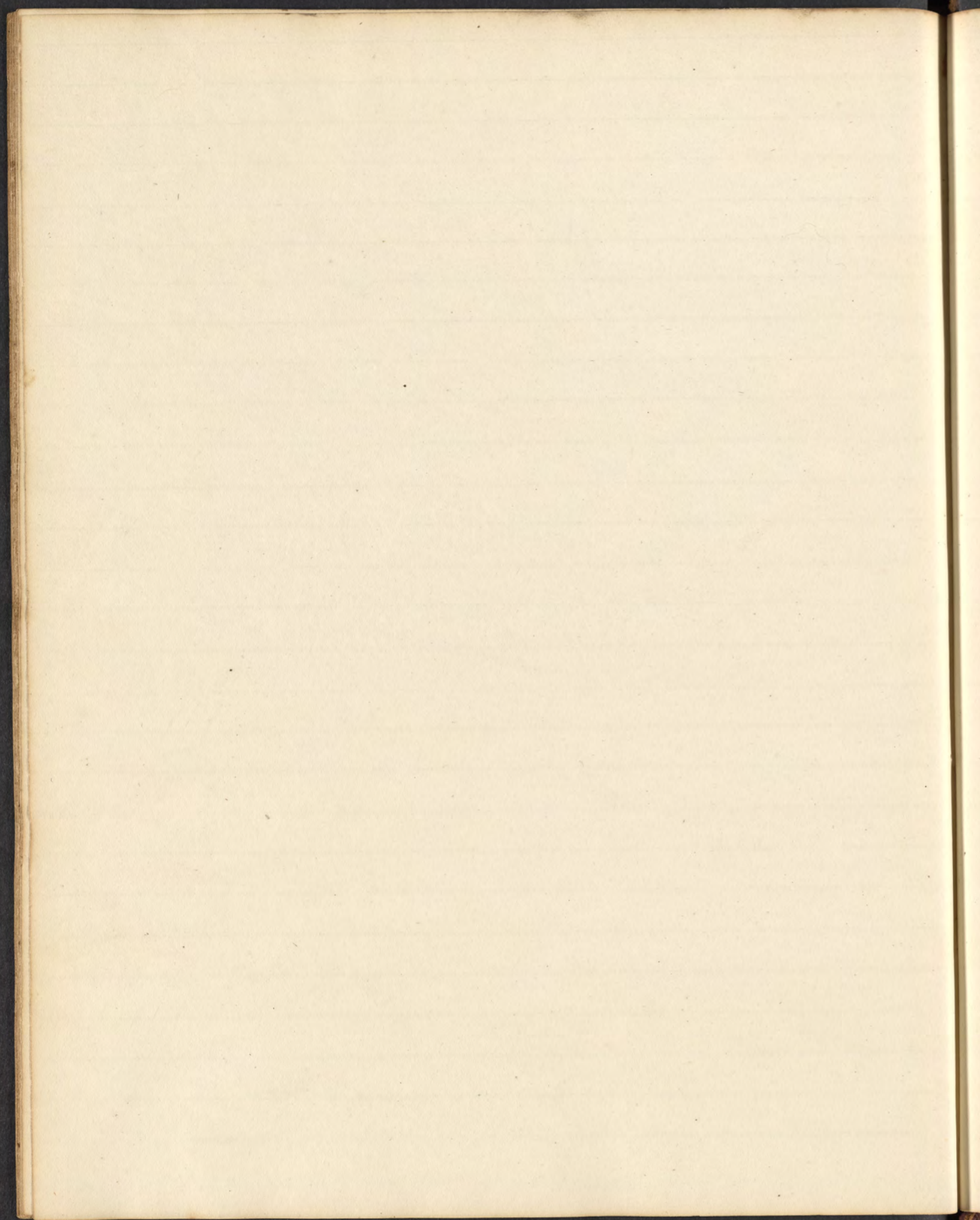


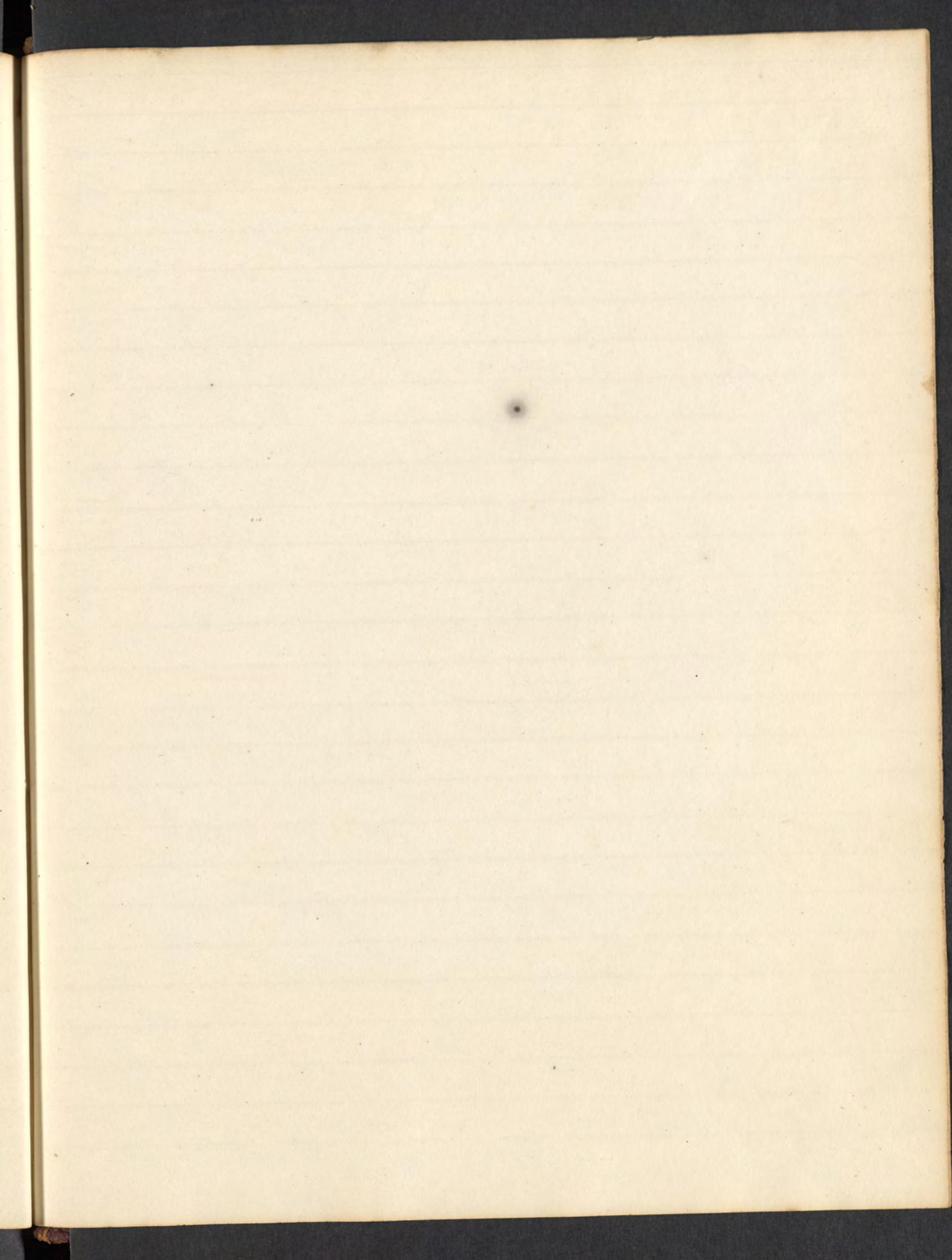


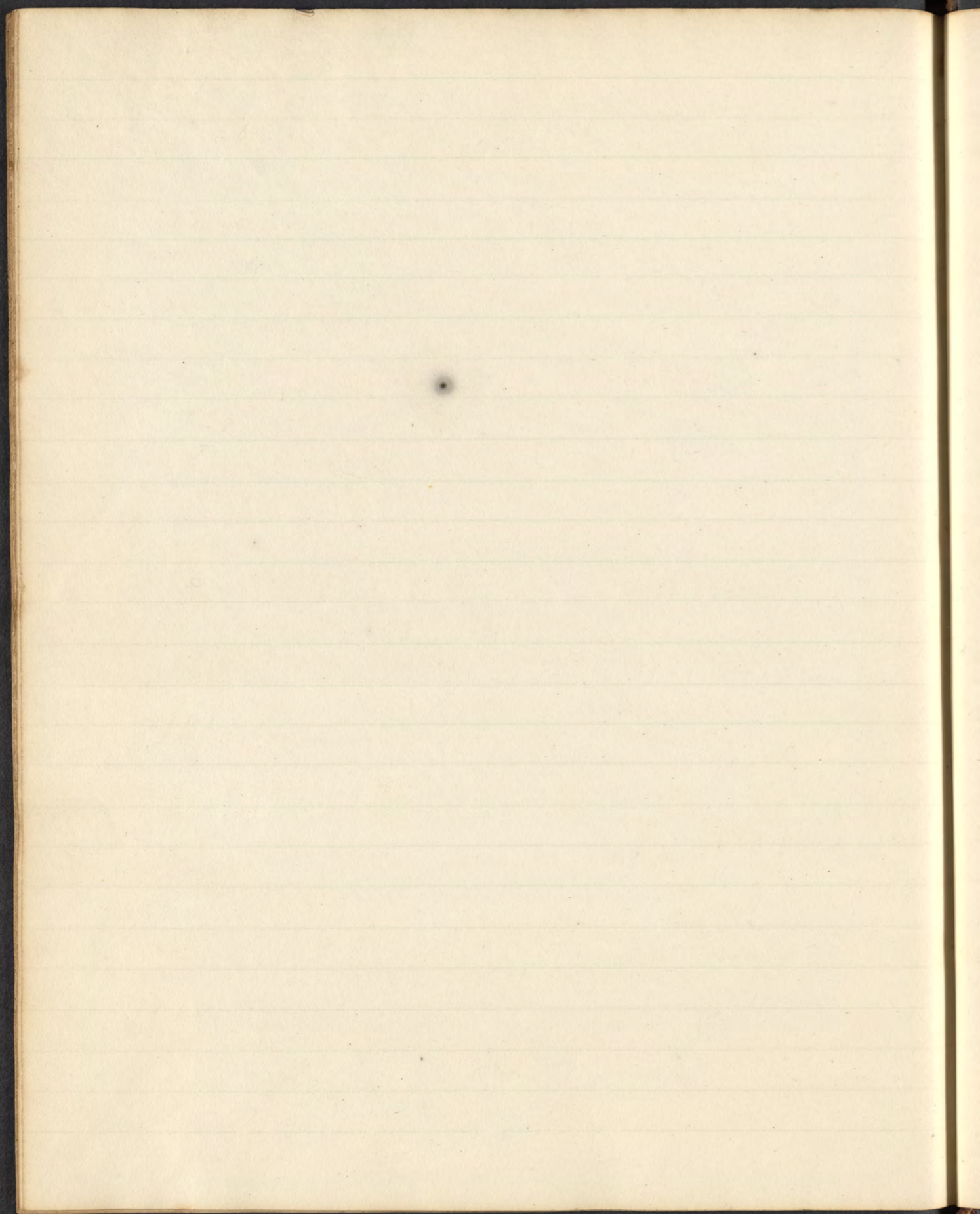


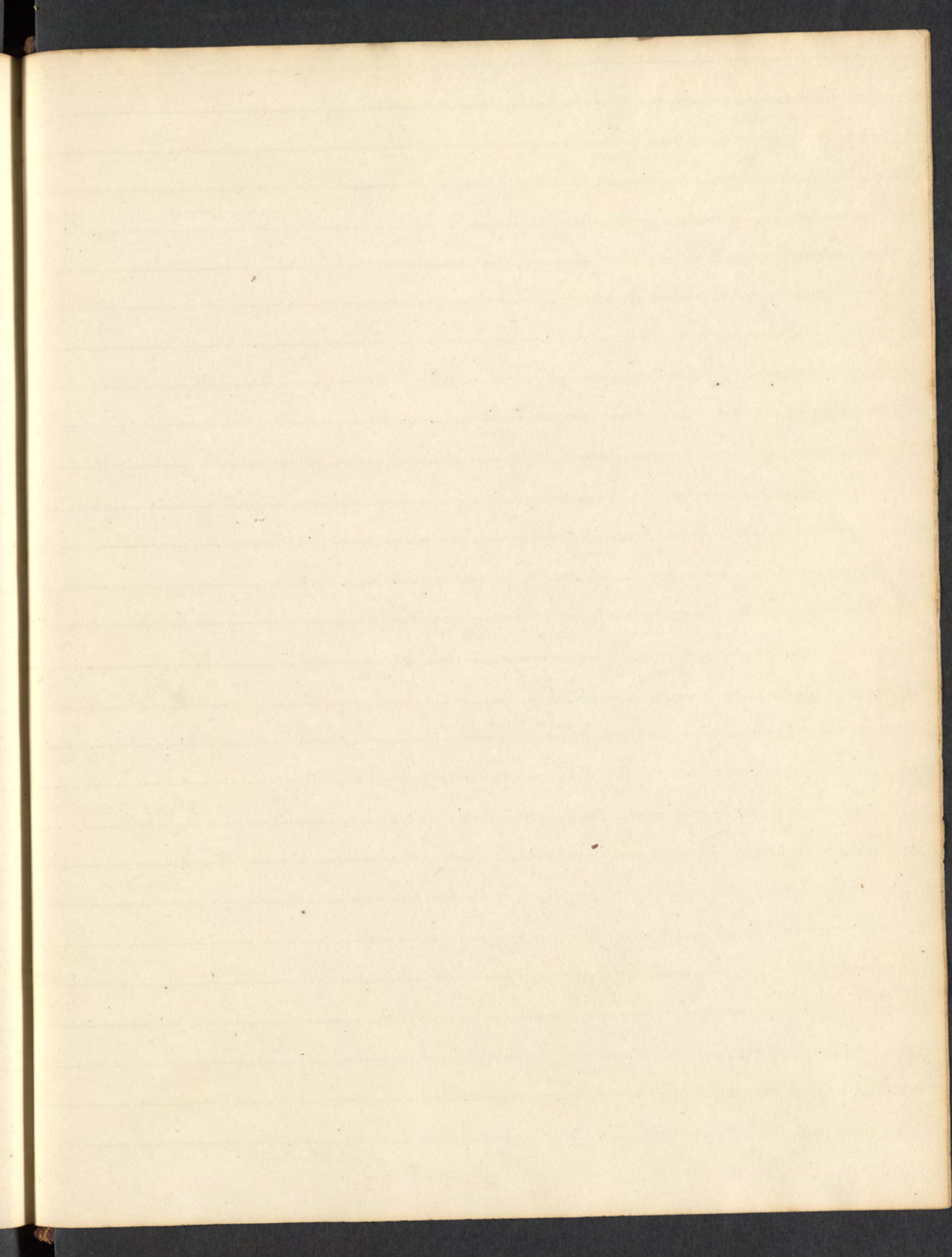


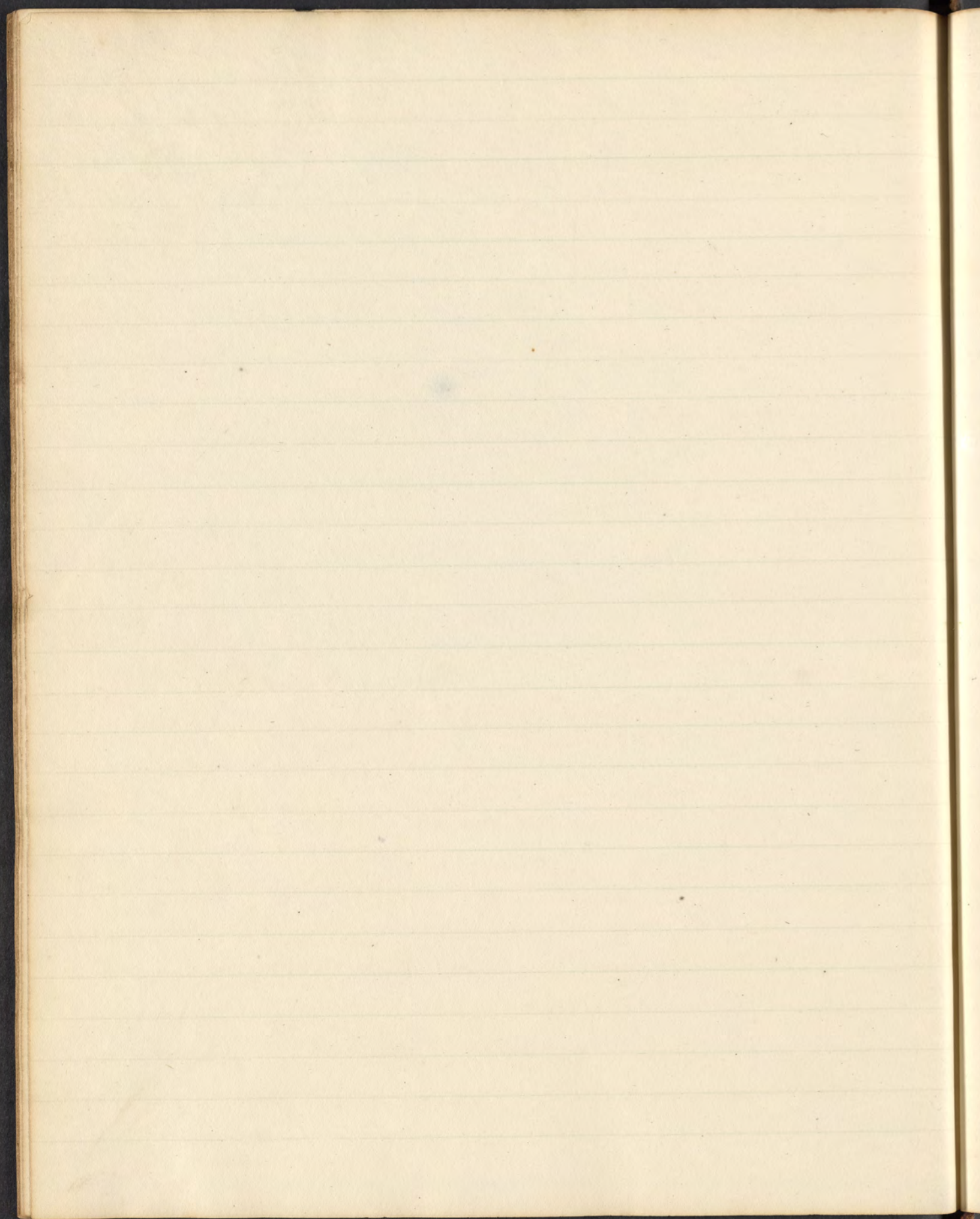


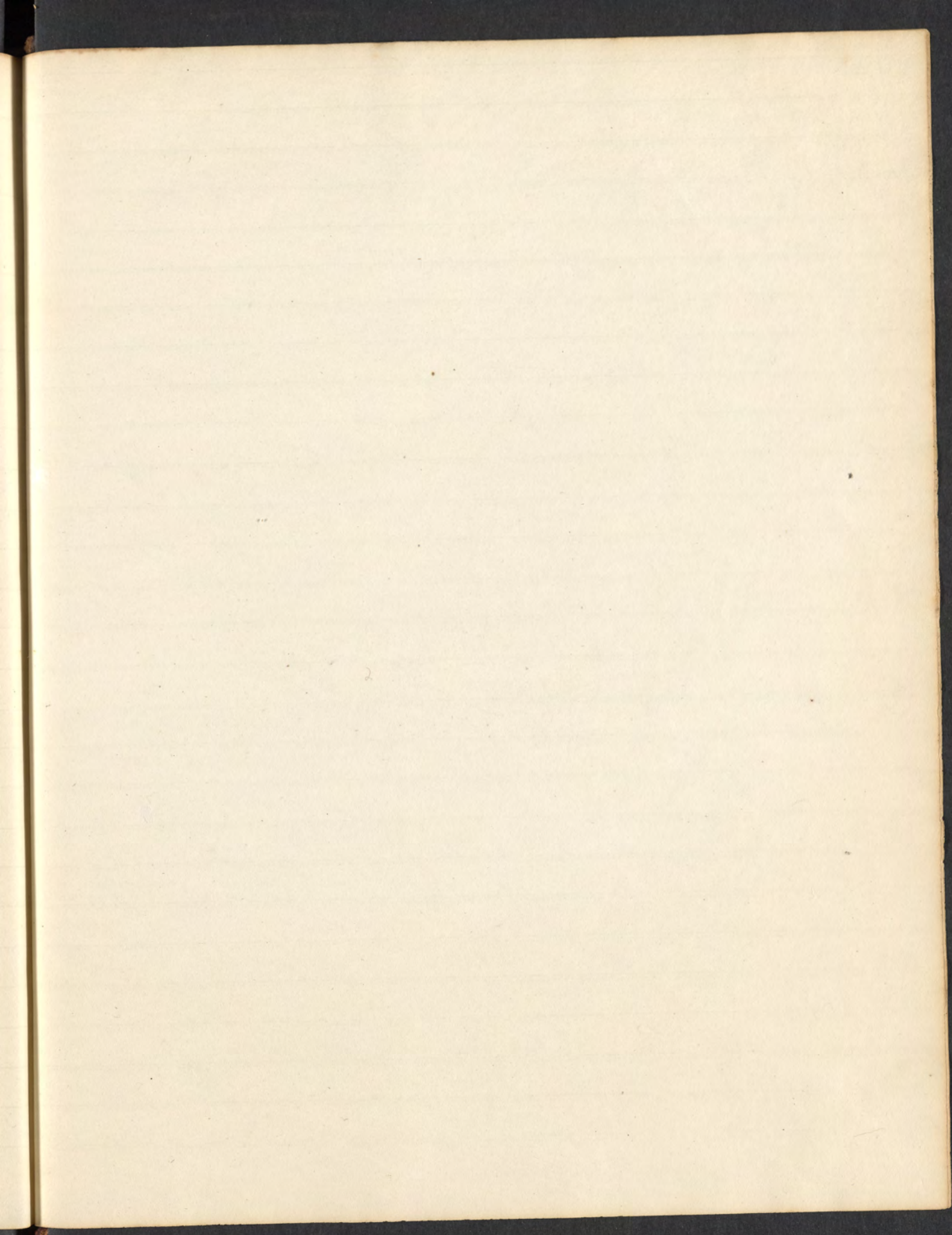


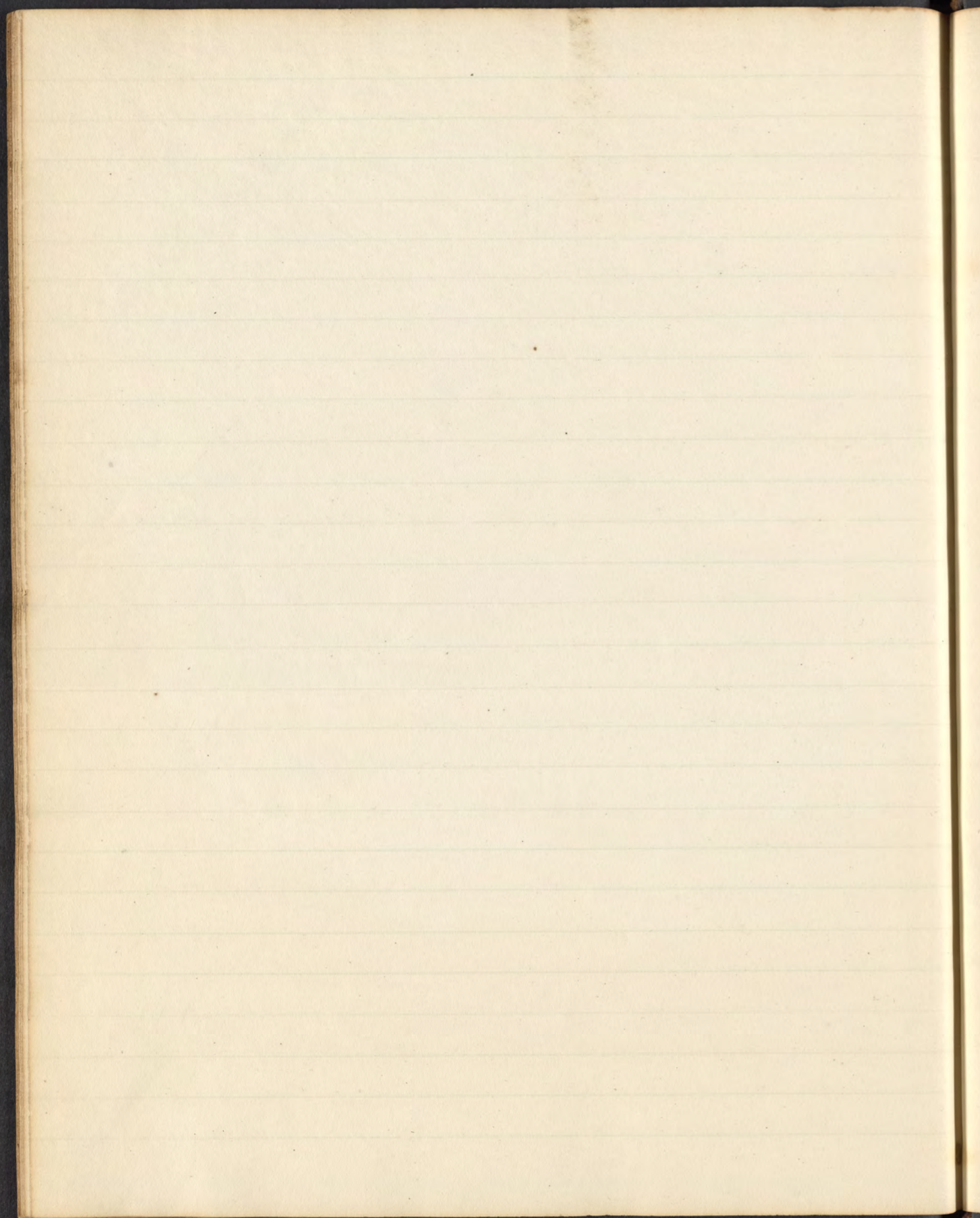


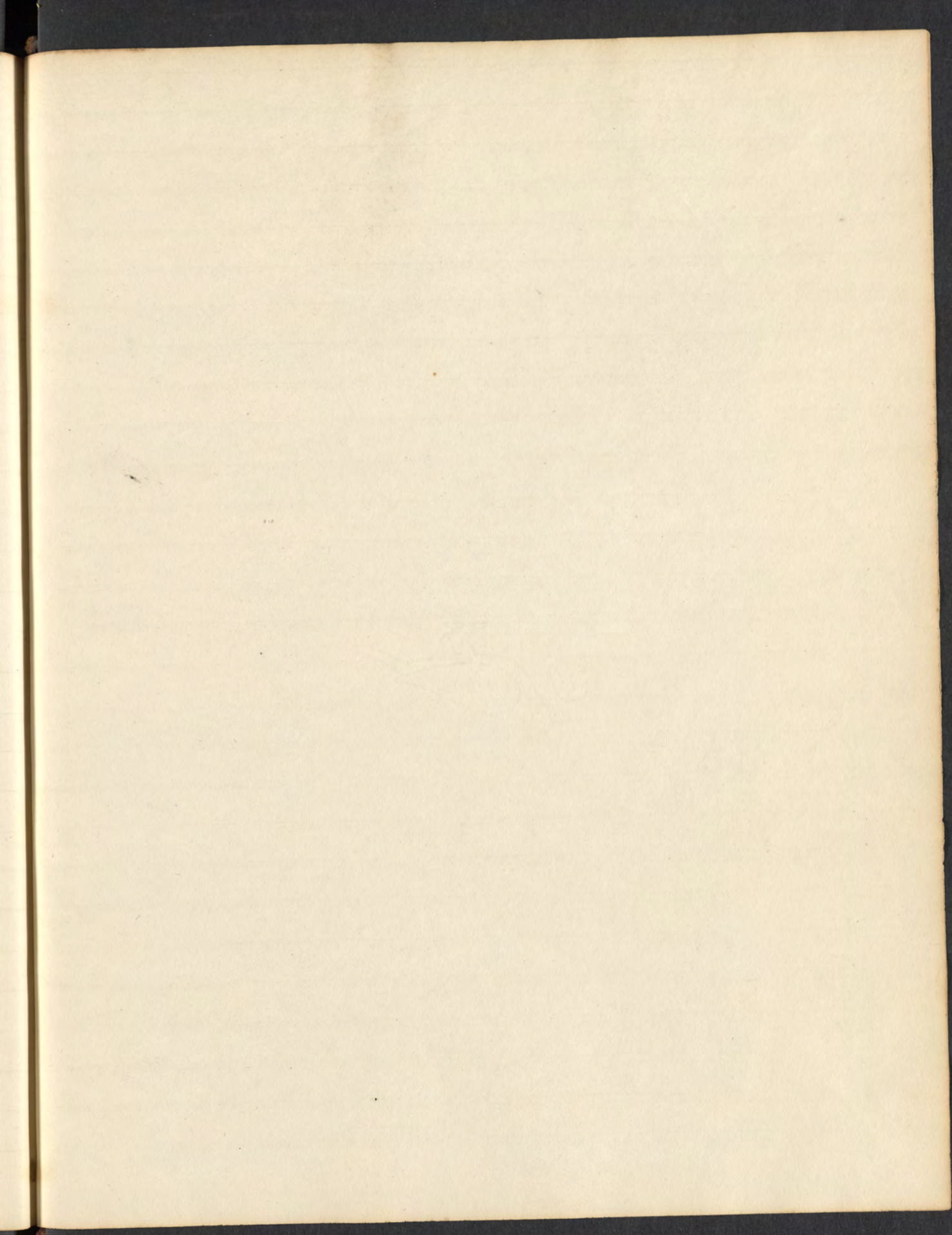


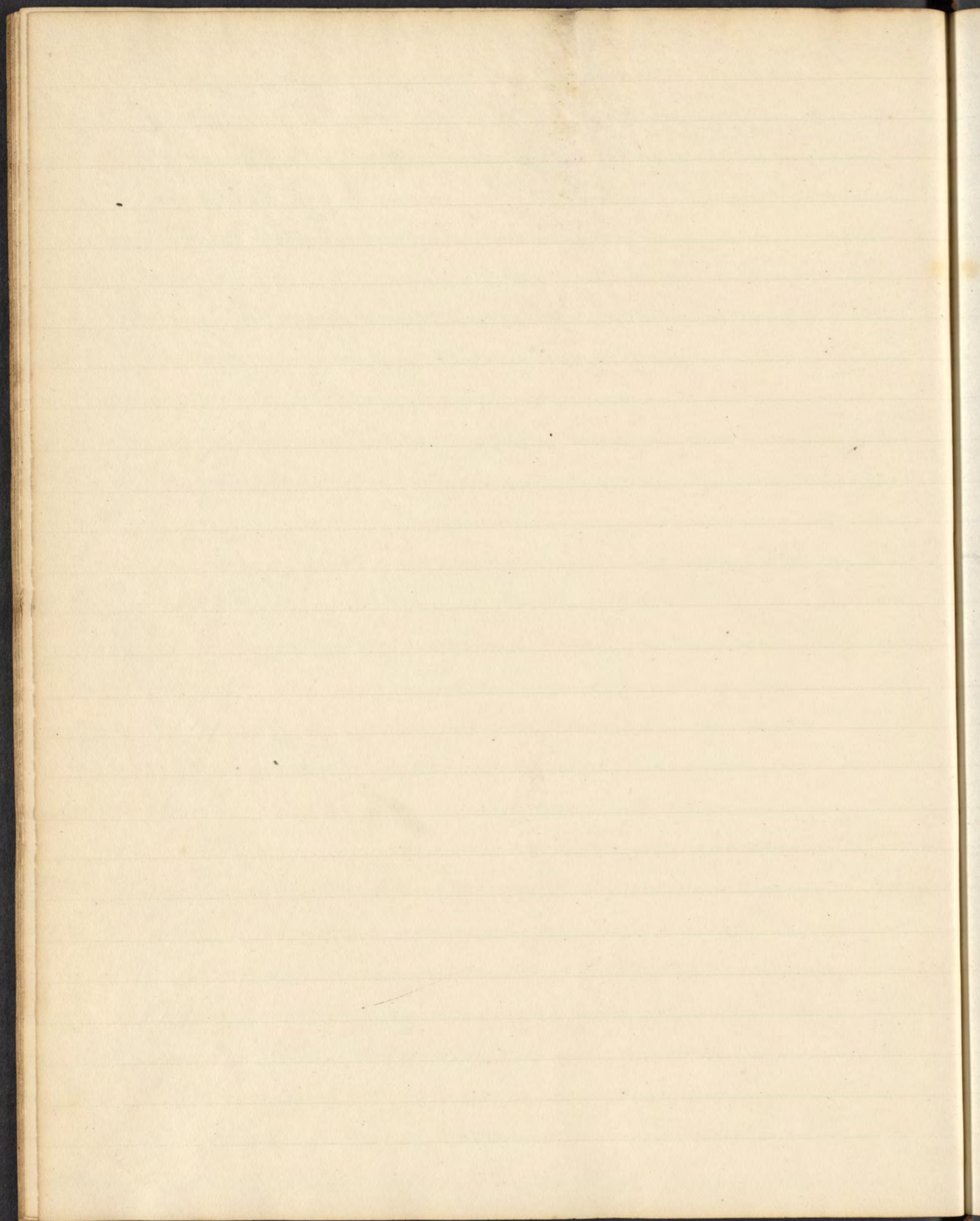




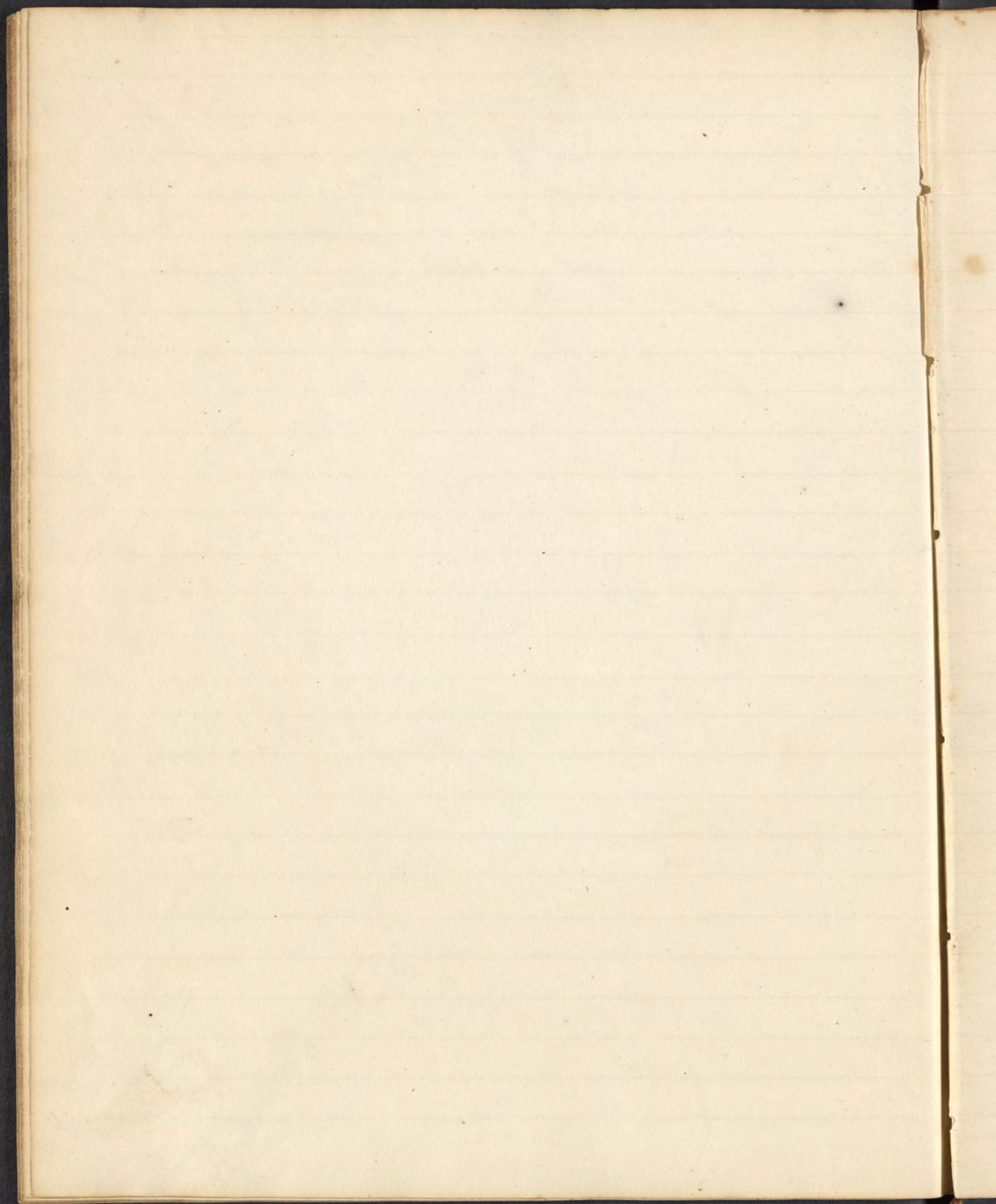


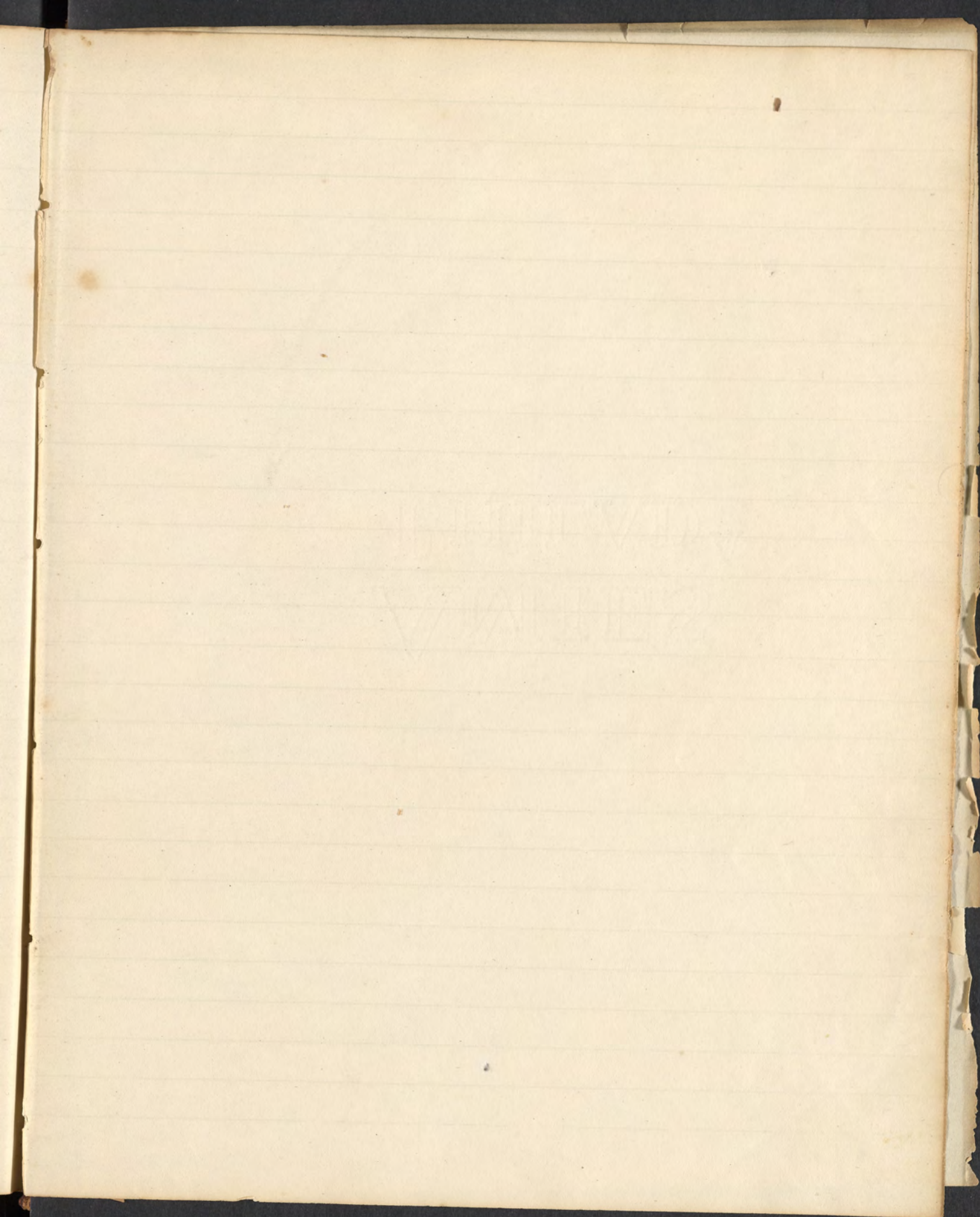


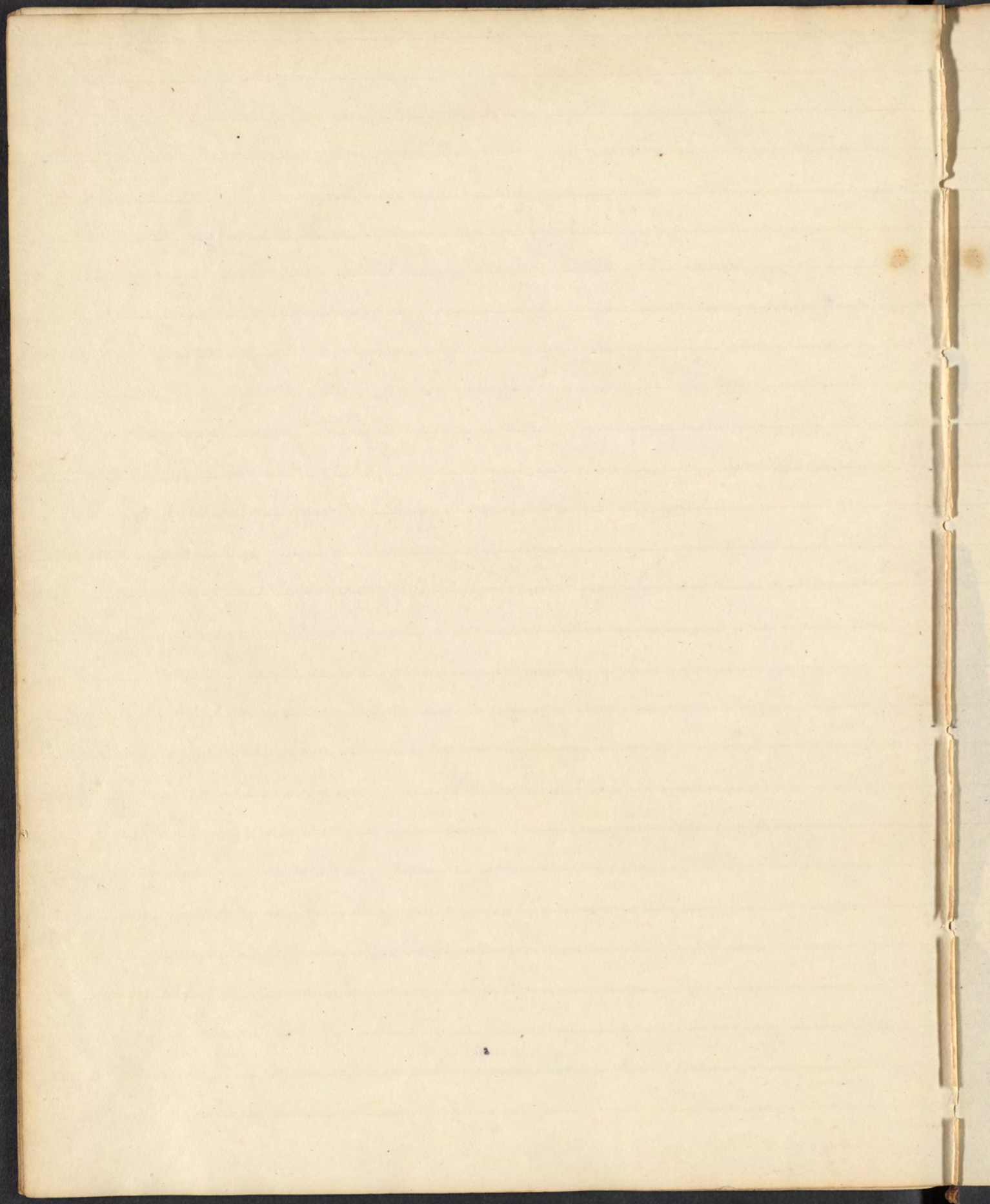




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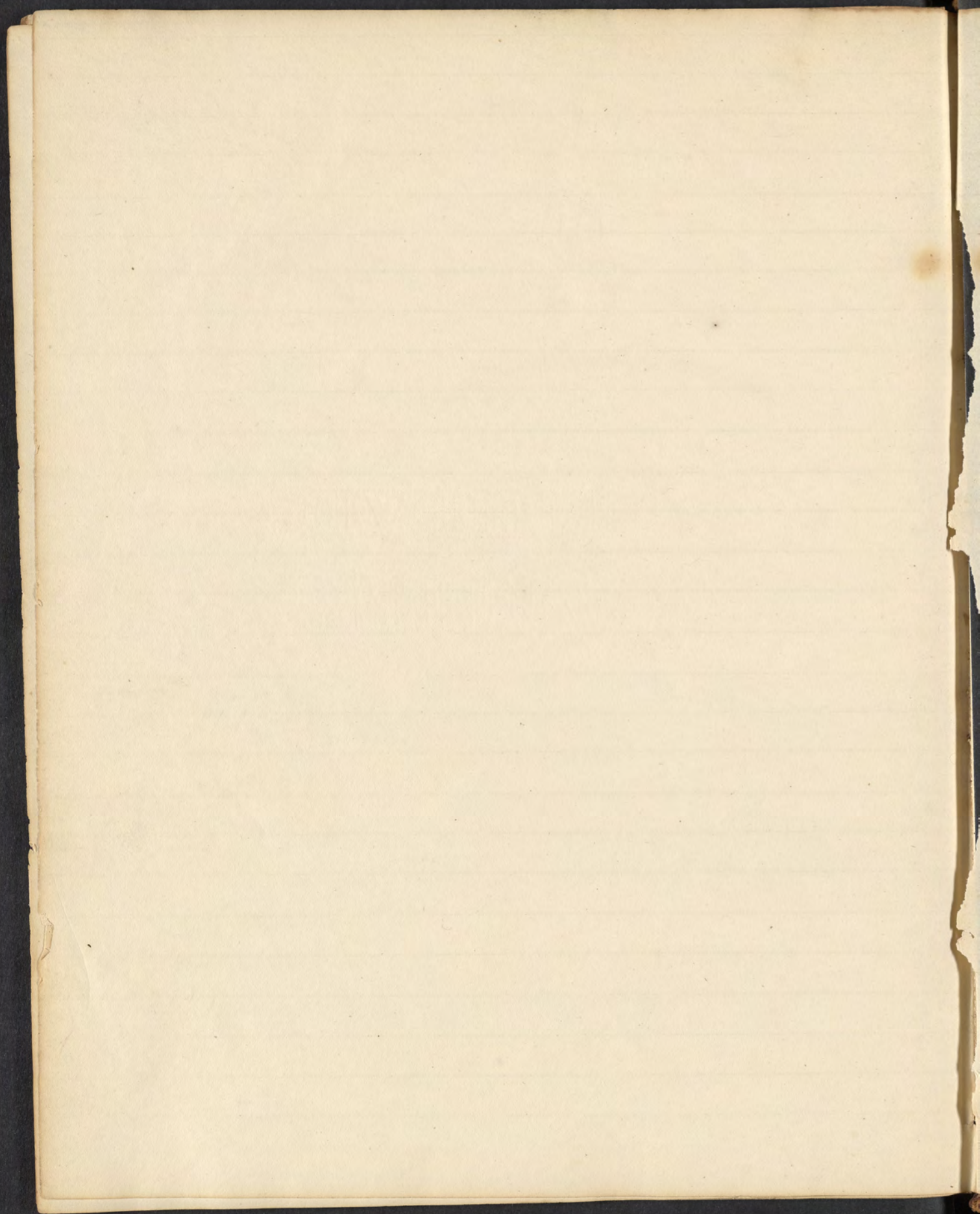




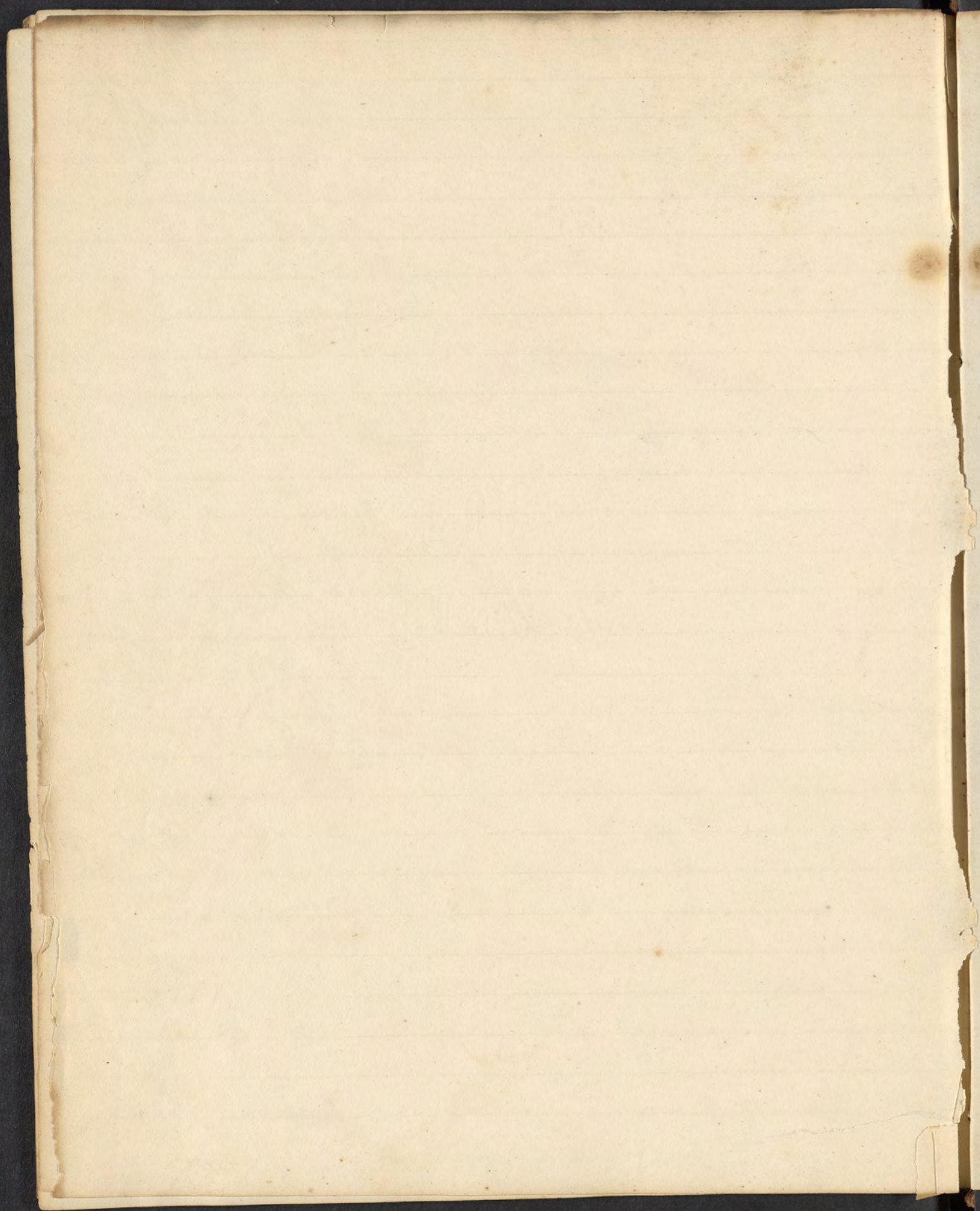


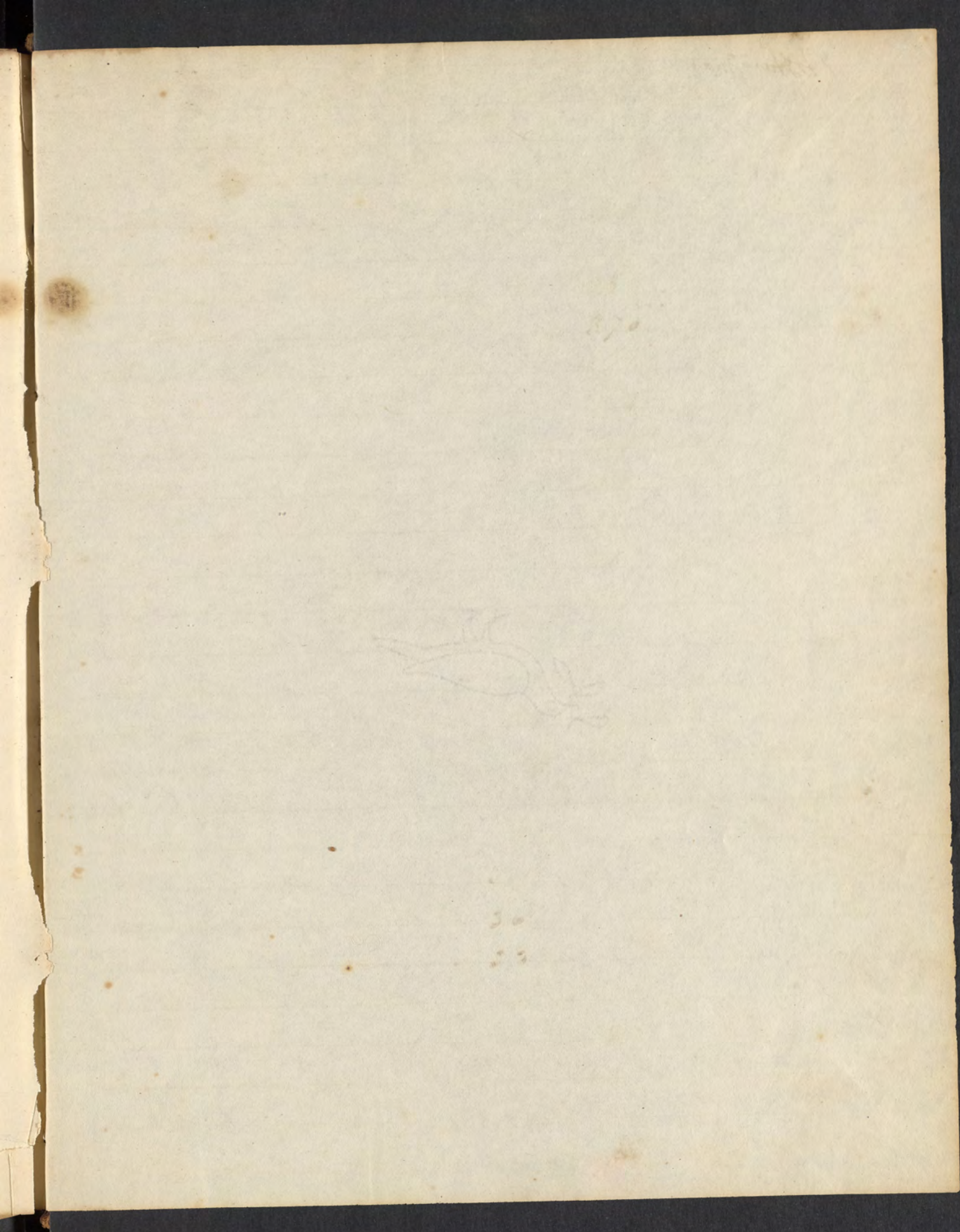
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